

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2006, 17:36:13 ; Search time 230 Seconds
(without alignments)
30.675 Million cell updates/sec

Title: US-10-772-537-4

Perfect score: 49

Sequence: 1 HSFGVASVE 10

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database :

UniProt_05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	49	100.0	362	1	FETUA_PIG
2	46	93.9	359	1	FETUA_BOVIN
3	46	93.9	364	1	FETUA_SHEEP
4	38	77.6	53	2	Q9LLS7_TOBAC
5	38	77.6	345	1	FETUA_MOUSE
6	38	77.6	348	1	FETUA_MERUN
7	38	77.6	352	1	FETUA_RAT
8	38	77.6	352	2	Q5BKD2_RAT
9	38	77.6	553	2	Q7TP75_RAT
10	38	77.6	951	2	Q4HX59_GIBZE
11	37	75.5	165	2	Q89X70_BRAJA
12	37	75.5	370	2	Q58D17_BOVIN
13	37	75.5	389	2	Q4WYN2_ASFPF
14	37	75.5	460	2	Q9S7R7_ARATH
15	37	75.5	487	2	Q4WEH8_ASFPF
16	37	75.5	713	1	LRRN5_HUMAN
17	37	75.5	750	2	Q7QJA7_ANOGA
18	37	75.5	841	1	KACH2_HUMAN
19	36	73.5	215	1	BAD_PSEAE
20	36	73.5	407	2	Q94GN4_ORYSA
21	36	73.5	712	2	Q5P0U1_AZOSE
22	36	73.5	2232	2	Q7PYE4_ANOGA
23	36	73.5	2342	2	Q01677_BONMO
24	35	71.4	150	1	FABZ_MANSU
25	35	71.4	263	2	Q819P1_PSOOV
26	35	71.4	308	2	Q8D751_VIBVU
27	35	71.4	323	2	Q9ZG15_RHOER
28	35	71.4	361	2	Q59UH0_CANAL
29	35	71.4	361	2	Q59UM3_CANAL
30	35	71.4	413	2	Q7PG16_ANOGA
31	35	71.4	557	2	Q9VZ33_DRONE

32	71.4	1176	2	Q4S4P3_TETNG
33	71.4	1414	2	Q5XK85_XENLA
34	71.4	3227	1	PTR1_SCHPO
35	69.4	132	2	Q4HL42_CAMLA
36	69.4	197	2	Q9YBWA_AERPE
37	69.4	212	2	Q7JLGI_TREDE
38	69.4	223	2	Q5NRG0_ZYMMO
39	69.4	270	2	Q56W18_ARATH
40	69.4	286	2	Q4T7J5_TETNG
41	69.4	291	2	Q27496_CAEEL
42	69.4	294	2	Q8XZ73_RALSO
43	69.4	321	1	EURM1_EURMA
44	69.4	330	2	Q5S902_HELPU
45	69.4	330	2	Q9ZJP0_HELPU
46	69.4	352	2	Q606P2_METCA
47	69.4	374	2	Q55RS2_CRYNE
48	69.4	383	2	Q5KZ15_GFOKA
49	69.4	402	2	Q7W8N5_BORPA
50	69.4	402	2	Q7WM99_BORBR
51	69.4	417	2	Q51ZG3_MAGGR
52	69.4	441	2	Q93GH6_BACSU
53	69.4	462	2	Q9XTB4_CAEEL
54	69.4	470	2	Q4SF23_TETNG
55	69.4	568	2	Q4WTV4_ASFPF
56	69.4	606	2	Q5P8R7_AZOSE
57	69.4	702	2	Q8ZSR1_PYRAE
58	69.4	715	2	Q6H6L0_ORYSA
59	69.4	724	2	Q81100_LYCES
60	69.4	724	2	Q9T0P6_LYCES
61	69.4	745	2	Q50ZV0_ENTHI
62	69.4	838	2	Q9ZP11_LYCES
63	69.4	847	2	Q8RWC1_ARATH
64	69.4	847	2	Q9SCW1_ARATH
65	69.4	1558	2	Q8YL76_ANASP
66	69.4	4666	2	Q7XQ90_ORYSA
67	67.3	83	2	Q7XIL9_ORYSA
68	67.3	94	2	Q7M431_DERPT
69	67.3	108	2	Q96HT0_HUMAN
70	67.3	128	2	Q19063_CAEEL
71	67.3	134	2	Q8C499_MOUSE
72	67.3	149	2	Q8UHC3_AGR75
73	67.3	150	1	YTR1_AZOBH
74	67.3	153	2	Q5U614_HUMAN
75	67.3	183	2	Q73TV9_MYCPA
76	67.3	220	2	Q7NQ37_CHRYO
77	67.3	239	2	Q5ZFQ0_SCIOT
78	67.3	242	2	Q7UQJ3_RHOBA
79	67.3	248	2	Q6MQP0_BDEBA
80	67.3	258	1	LPXA_PSEAE
81	67.3	261	2	Q89HA4_BRAJA
82	67.3	266	2	Q4JXP6_CORJK
83	67.3	274	2	Q57YV1_9TRYP
84	67.3	274	2	Q584J0_9TRYP
85	67.3	319	1	ARK74_HUMAN
86	67.3	326	2	Q57ZD0_9TRYP
87	67.3	331	1	ARK73_HUMAN
88	67.3	344	2	Q98GZ9_RHILO
89	67.3	373	2	Q8C770_MOUSE
90	67.3	373	2	Q9Z106_MOUSE
91	67.3	381	2	Q83KV7_SHIFL
92	67.3	391	2	Q6BRK4_DEBHA
93	67.3	396	2	Q67TQ0_ORYSA
94	67.3	416	2	Q8WUF8_HUMAN
95	67.3	416	2	Q5ZK44_CHICK
96	67.3	425	2	Q6PFX1_MOUSE
97	67.3	443	2	Q7N0H9_PHOLL
98	67.3	445	2	Q6PEV2_PAVLU
99	67.3	460	1	YDDV_ECOLI
100	67.3	493	2	Q57VV7_9TRYP

ALIGNMENTS

RESULT 1

FETUA_PIG
AC P29700; STANDARD; PRT; 362 AA.
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Alpha-2-HS-glycoprotein precursor (Fetuin-A) (Fragment).
GN Name=AHSG; Synonyms=FETUA;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE, AND PARTIAL PROTEIN SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=92209519; PubMed=1372866;
RA Brown W.M., Christie D.L., Saunders N.R., Nawratil P.,
RA Dziegielewska K.D., Mueller-Esterl W.,
RT "The nucleotide and deduced amino acid structures of sheep and pig
fetuin. Common structural features of the mammalian fetuin family.";
RL Eur. J. Biochem. 205:321-331(1992).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Expressed by the liver and secreted in plasma.
CC -1- SIMILARITY: Belongs to the fetuin family.
CC -1- SIMILARITY: Contains 2 cystatin-like domains.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
DR EMBL; X56021; CAA39498.1; -; mRNA.
DR PIR; S22395;
DR GO; GO:0005615; C:extracellular space; ISS.
DR GO; GO:0019210; P:kinase inhibitor activity; ISS.
DR GO; GO:0006953; P:acute-phase response; ISS.
DR GO; GO:0030502; P:negative regulation of bone mineralization; ISS.
DR GO; GO:0046627; P:negative regulation of insulin receptor sig. .; ISS.
DR GO; GO:0006907; P:pinoctosis; ISS.
DR GO; GO:0050766; P:positive regulation of phagocytosis; ISS.
DR GO; GO:0050727; P:regulation of inflammatory response; ISS.
DR GO; GO:0001501; P:skeletal development; ISS.
DR InterPro; IPR000010; Prot_inh_cystat.
DR InterPro; IPR001363; Prot_inh_fetuin.
DR Pfam; PF00031; Cystatin; 2.
DR SMART; SM00043; CY; 2.
DR PROSITE; PS01254; FETUIN_1; 1.
DR PROSITE; PS01255; FETUIN_2; 1.
KW Direct protein sequencing; Glycoprotein; Repeat; Signal.
FT SIGNAL <1 15
FT CHAIN 16 362 Alpha-2-HS-glycoprotein.
FT DOMAIN 24 141 Cystatin-like 1.
FT DOMAIN 142 258 Cystatin-like 2.
FT CARBOHYD 96 96 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 153 153 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 173 173 N-linked (GlcNAc. . .) (Potential).
FT DISULFID 29 353 By similarity.
FT DISULFID 86 97 By similarity.
FT DISULFID 111 129 By similarity.
FT DISULFID 143 146 By similarity.
FT DISULFID 205 216 By similarity.
FT DISULFID 227 244 By similarity.
FT NON_TER 1 1
SQ SEQUENCE 362 AA; 38425 MW; 532648EE43485686 CRC64;
Query Match 100.0%; Score 49; DB 1; Length 362;
Best Local Similarity 100.0%; Pred. No. 0.25;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|||||
DB 311 HSFSGVASVE 320

RESULT 2

FETUA_BOVIN
ID FETUA_BOVIN STANDARD; PRT; 359 AA.
AC P12763;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Alpha-2-HS-glycoprotein precursor (Fetuin-A) (Asialofetuin).
GN Name=AHSG; Synonyms=FETUA;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=90170937; PubMed=1689725;
RA Dziegielewska K.D., Brown W.M., Casey S.J., Christie D.L.,
RA Foreman R.C., Hill R.M., Saunders N.R.;
RT "The complete cDNA and amino acid sequence of bovine fetuin. Its
RT homology with alpha 2HS glycoprotein and relation to other members of
RT the cystatin superfamily";
RL J. Biol. Chem. 265:4354-4357(1990).
RN [2]
RP PROTEIN SEQUENCE OF 19-123 AND 188-243.
RX MEDLINE=87190952; PubMed=2436943; DOI=10.1016/0014-5793(87)80010-8;
RA Christie D.L., Dziegielewska K.M., Hill R.M., Saunders N.R.;
RT "Fetuin: the bovine homologue of human alpha 2HS glycoprotein.";
RL FEBS Lett. 214:45-49(1987).
RN [3]
RP PROTEIN SEQUENCE OF 19-62.
RX MEDLINE=81207262; PubMed=6165360;
RA Alcaraz G., Marti J., Moinier D., Fougereau M.;
RT "NH2-terminal sequence of calf fetuin";
RL Biochem. Biophys. Res. Commun. 99:30-36(1981).
RN [4]
RP PROTEIN SEQUENCE OF 72-103 AND 144-187.
RX MEDLINE=88087074; PubMed=2447075;
RA Yet M.G., Chin C.C.Q., Wold F.;
RT "The covalent structure of individual N-linked glycopeptides from
RT ovomucoid and asialofetuin.";
RL J. Biol. Chem. 263:111-117(1988).
RN [5]
RP CARBOHYDRATE-LINKAGE SITES.
RA Pisano A., Jardine D.R., Packer N.H., Farnsworth V., Carson W.,
RA Cartier P., Redmond J.W., Williams K.L., Gooley A.A.;
RT "Identifying sites of glycosylation in proteins.";
RL (in) Townsend R.R., Hotchkiss A.T. Jr. (eds.);
RL Techniques in glycobiology, pp.299-320, Marcel Dekker, New York
RL (1996).
CC -1- FUNCTION: Promotes endocytosis, possesses opsonic properties and
CC influences the mineral phase of bone. Suggested to have lymphocyte
CC stimulating properties, lipid binding capability and to bind
CC thyroid hormone.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Liver and bone.
CC -1- PTM: Phosphorylated on serine residues.
CC -1- SIMILARITY: Belongs to the fetuin family.
CC -1- SIMILARITY: Contains 2 cystatin-like domains.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
DR EMBL; X16577; CAA34596.1; -; mRNA.

```

DR BIR; A35714, A35714.
DR GlycoSiteDB; P12763; -.
DR GO; GO:0005615; C:extracellular space; ISS.
DR GO; GO:0019210; F:kinase inhibitor activity; ISS.
DR GO; GO:0006953; P:acute-phase response; ISS.
DR GO; GO:0030502; P:negative regulation of bone mineralization; ISS.
DR GO; GO:0046627; P:negative regulation of insulin receptor sig. .; ISS.
DR GO; GO:0006907; P:pinocytosis; ISS.
DR GO; GO:0050766; P:positive regulation of phagocytosis; ISS.
DR GO; GO:0050727; P:regulation of inflammatory response; ISS.
DR GO; GO:0001501; P:skeletal development; ISS.
DR InterPro; IPR0001010; Prot_inh_cystat.
DR Pfam; PF00031; Cystatin; 2.
DR SMART; SM00043; Cy; 2.
DR PROSITE; PS01254; FETUIN 1; 1.
DR PROSITE; PS01255; FETUIN 2; 1.
KW Direct protein sequencing; Glycoprotein; Mineral balance;
KW Phosphorylation; Plasma; Repeat; Signal.
FT SIGNAL 1 18
FT CHAIN 19 359 Alpha-2-HS-glycoprotein.
FT DOMAIN 27 144 Cystatin-like 1.
FT DOMAIN 145 261 Cystatin-like 2.
FT SITE 143 144 Cleavage (by trypsin) (Potential).
FT CARBOHYD 99 99 N-linked (GlcNAc. .).
FT FTID=CAR 000061.
FT CARBOHYD 156 156 N-linked (GlcNAc. .).
FT FTID=CAR 000062.
FT CARBOHYD 176 176 N-linked (GlcNAc. .).
FT FTID=CAR 000063.
FT CARBOHYD 271 271 O-linked (GalNAc. .).
FT CARBOHYD 280 280 O-linked (GalNAc. .).
FT CARBOHYD 282 282 O-linked (GalNAc. .).
FT CARBOHYD 341 341 O-linked (GalNAc. .).
FT DISULFID 32 350 By similarity.
FT DISULFID 89 100 By similarity.
FT DISULFID 114 132 By similarity.
FT DISULFID 146 149 By similarity.
FT DISULFID 208 219 By similarity.
FT DISULFID 230 248 By similarity.
FT CONFLICT 57 58 R -> V (in Ref. 3).
FT CONFLICT 72 72 R -> Q (in Ref. 2).
FT CONFLICT 106 106 T -> H (in Ref. 2).
FT CONFLICT 116 121 IHLVKQ -> FSVVKL (in Ref. 2).
FT CONFLICT 186 186 S -> P (in Ref. 4).
FT CONFLICT 195 195 V -> R (in Ref. 2).
SQ SEQUENCE 359 AA; 38419 MW; ED8F685C44CC849B CRC64;

Query Match 93.9%; Score 46; DB 1; Length 359;
Best Local Similarity 90.0%; Pred. No. 1;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
Db 313 HTFSGVASVE 322
|:|||||||

RESULT 3
FETUA SHEEP STANDARD; PRT; 364 AA.
AC P29701;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Alpha-2-HS-glycoprotein precursor (Fetuin-A).
GN Name=AHSG; Synonyms=FETUA;
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Caprinae; Ovis.
OC NCBI_TaxID=9940;
RN [1]
RP NUCLEOTIDE SEQUENCE, AND PROTEIN SEQUENCE OF 16-23.

```

```

RC TISSUE=Liver;
RX MEDLINE=92209519; PubMed=1372866;
RA Brown W.M., Christie D.L., Saunders N.R., Nawratil P.,
RA Dziegielewska K.D., Mueller-Esterl W.;
RT "The nucleotide and deduced amino acid structures of sheep and pig
RT fetuin. Common structural features of the mammalian fetuin family.";
RL Eur. J. Biochem. 205:321-331(1992).
CC [-] SUBCELLULAR LOCATION: Secreted.
CC [-] SIMILARITY: Belongs to the fetuin family.
CC [-] SIMILARITY: Contains 2 cystatin-like domains.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; X16578; CAA34597.1; -, mRNA.
DR PIR; S22394; S22394.
DR GO; GO:0005615; C:extracellular space; ISS.
DR GO; GO:0019210; F:kinase inhibitor activity; ISS.
DR GO; GO:0006953; P:acute-phase response; ISS.
DR GO; GO:0030502; P:negative regulation of bone mineralization; ISS.
DR GO; GO:0046627; P:negative regulation of insulin receptor sig. .; ISS.
DR GO; GO:0006907; P:pinocytosis; ISS.
DR GO; GO:0050766; P:positive regulation of phagocytosis; ISS.
DR GO; GO:0050727; P:regulation of inflammatory response; ISS.
DR GO; GO:0001501; P:skeletal development; ISS.
DR InterPro; IPR0001010; Prot_inh_cystat.
DR Pfam; PF00031; Cystatin; 2.
DR SMART; SM00043; Cy; 2.
DR PROSITE; PS01254; FETUIN 1; 1.
DR PROSITE; PS01255; FETUIN 2; 1.
KW Direct protein sequencing; Glycoprotein; Repeat; Signal.
FT SIGNAL 1 15
FT CHAIN 16 364 Alpha-2-HS-glycoprotein.
FT DOMAIN 27 144 Cystatin-like 1.
FT DOMAIN 145 261 Cystatin-like 2.
FT CARBOHYD 99 99 N-linked (GlcNAc. .) (Potential).
FT CARBOHYD 156 156 N-linked (GlcNAc. .) (Potential).
FT CARBOHYD 176 176 N-linked (GlcNAc. .) (Potential).
FT DISULFID 32 355 By similarity.
FT DISULFID 89 100 By similarity.
FT DISULFID 114 132 By similarity.
FT DISULFID 146 149 By similarity.
FT DISULFID 208 219 By similarity.
FT DISULFID 230 248 By similarity.
FT VARIANT 16 17 Missing (in 60 to 70% of the chains).
SQ SEQUENCE 364 AA; 38680 MW; 5046E569789AA7DB CRC64;

Query Match 93.9%; Score 46; DB 1; Length 364;
Best Local Similarity 90.0%; Pred. No. 1.1;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
Db 318 HTFSGVASVE 327
|:|||||||

RESULT 4
Q9LLS7_TOBAC
ID Q9LLS7_TOBAC PRELIMINARY; PRT; 53 AA.
AC Q9LLS7;
DT 01-OCT-2000 (T-EMBLrel. 15, Created)
DT 01-OCT-2000 (T-EMBLrel. 15, Last sequence update)
DT 01-OCT-2000 (T-EMBLrel. 15, Last annotation update)
DE Alpha-2-HS-glycoprotein-like protein (Fragment).
OS Nicotiana tabacum (Common tobacco).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC lamiales; Solanales; Solanaceae; Nicotiana.
OC NCBI_TaxID=4097;

```

```

RN NP NUCLEOTIDE SEQUENCE.
RP TISSUE=Root;
RX PubMed=10996241;
RA Wang J., Sheshan M., Brookman H., Timko M.P.;
RT "Characterization of cDNAs differentially expressed in roots of
RT tobacco (Nicotiana tabacum cv Burley 21) during the early stages of
RT alkaloid biosynthesis.";
RL Plant Sci. 158:19-32(2000).
RN NP NUCLEOTIDE SEQUENCE.
RP TISSUE=Root;
RX Sheehan M.J., Wang J., Brookman H.E., Timko M.P.;
RL Submitted (JUN-1999) to the EMBL/GenBank/DBSJ databases.
DR EMBL; AF156369; AAF65799.1; -; mRNA.
FT NON TER 1
FT NON TER 53
SQ SEQUENCE 53 AA; 5414 MW; F3D7491638DF4D34 CRC64;

Query Match 77.6%; Score 38; DB 2; Length 53;
Best Local Similarity 80.0%; Pred. No. 6.3;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Oy 1 HSPSGVASVE 10
Db 24 HAPSPVASVE 33

RESULT 5
FETUA MOUSE
ID FETUA MOUSE STANDARD; PRT; 345 AA.
AC P29699; O35634;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Alpha-2-HS-glycoprotein precursor (Fetuin-A) (Countertrypin).
GN Name:Ahsq; Synonyms:Fetua;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN NP NUCLEOTIDE SEQUENCE.
RP TISSUE=Liver;
RX MEDLINE=92223088; PubMed=373325; DOI=10.1016/0167-4781(92)90522-2;
RA Yang F., Chen Z.-L., Bergeron J.M., Cupples R.L., Friedrichs W.E.;
RT "Human alpha 2-HS-glycoprotein/bovine fetuin homologue in mice:
RT identification and developmental regulation of the gene.";
RL Biochim. Biophys. Acta 1130:149-156(1992).
RN NP NUCLEOTIDE SEQUENCE.
RP STRAIN=129;
RX MEDLINE=98058938; PubMed=9395485; DOI=10.1074/jbc.272.50.31496;
RA Jahnke-Dechent W., Schinke T., Trindl A., Mueller-Esterl W.,
RA Sablitzky F., Kaiser S., Blessing M.;
RT "Cloning and targeted deletion of the mouse fetuin gene.";
RL J. Biol. Chem. 272:31496-31503 (1997).
RN NP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RP STRAIN=FVB/N; TISSUE=Liver, and Salivary gland;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan B., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udén T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Lequellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

```

```

RA Fahy J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalusz D.E.,
RA Schnurch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN NP PARTIAL PROTEIN SEQUENCE.
RX MEDLINE=93352581; PubMed=7688730;
RA Yamamoto K., Sinohara H.;
RT "Isolation and characterization of mouse countertrypin, a new trypsin
RT inhibitor belonging to the mammalian fetuin family.";
RL J. Biol. Chem. 268:17750-17753(1993).
CC -1- FUNCTION: Probably involved in differentiation.
CC -1- TISSUE SPECIFICITY: Liver is the major site of synthesis, but
CC fetuin is also expressed in limb buds and other extrahepatic
CC tissues during development.
CC -1- SIMILARITY: Belongs to the fetuin family.
CC -1- SIMILARITY: Contains 2 cystatin-like domains.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; S96534; AAB22070.1; -; mRNA.
DR EMBL; AF007900; AAB81718.1; -; Genomic DNA.
DR EMBL; AJ002146; CAA05210.1; -; Genomic DNA.
DR EMBL; BC012678; AAH12678.1; -; mRNA.
DR EMBL; BC019822; AAH19822.1; -; mRNA.
DR PIR; S21094; S21094.
DR Ensemble; ENSMUSG00000022868; Mus musculus.
DR MGI; MGI:107189; Ahsq.
DR GO; GO:0005615; Cytoplasmic space; ISS.
DR GO; GO:0019210; P:kinase inhibitor activity; ISS.
DR GO; GO:0006953; P:acute-phase response; ISS.
DR GO; GO:0030502; P:negative regulation of bone mineralization; IDA.
DR GO; GO:0046627; P:negative regulation of insulin receptor sig.; ISS.
DR GO; GO:0001503; P:proliferation; IDA.
DR GO; GO:0006907; P:pinocytosis; ISS.
DR GO; GO:0005766; P:positive regulation of phagocytosis; ISS.
DR GO; GO:0005727; P:regulation of inflammatory response; ISS.
DR InterPro; IPR000010; Prot_inh_cystat.
DR InterPro; IPR001363; Prot_inh_fetuin.
DR Pfam; PF00031; Cystatin; 2.
DR PROSITE; PS01254; FETUIN_1; 1.
DR PROSITE; PS01255; FETUIN_2; 1.
DR -----
KW Direct protein sequencing; Glycoprotein; Repeat; Signal.
FT SIGNAL 1 18
FT CHAIN 19 345 Alpha-2-HS-glycoprotein.
FT DOMAIN 27 144 Cystatin-like 1.
FT DOMAIN 145 255 Cystatin-like 2.
FT CARBOHYD 99 99 N-linked (GLCNAc.. ) (Potential).
FT CARBOHYD 156 156 N-linked (GLCNAc.. ) (Potential).
FT CARBOHYD 176 176 N-linked (GLCNAc.. ) (Potential).
FT DISULFID 32 336 By similarity.
FT DISULFID 89 100 By similarity.
FT DISULFID 114 132 By similarity.
FT DISULFID 146 149 By similarity.
FT DISULFID 208 219 By similarity.
FT DISULFID 230 247 By similarity.
FT CONFLICT 71 71 R -> QO (in Ref. 2; CAA05210).
SQ SEQUENCE 345 AA; 37326 MW; 4B7B9C9B1410658E CRC64;

Query Match 77.6%; Score 38; DB 1; Length 345;
Best Local Similarity 80.0%; Pred. No. 44;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

```


QY 1 HSPSGVASVE 10
Db 302 HAFSPVASVE 311

RESULT 6

```

FETUA MERUN
ID FETUA MERUN STANDARD; PRT; 348 AA.
AC P97515;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Alpha-2-HS-glycoprotein precursor (Fetuin-A) (Countertrypin).
GN Name-AHSG; Synonyms=FETUA;
OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Gerbillinae; Meriones.
OX NCBI_TaxID=10047;
RN [1]_TaxID=10047;
RP NUCLEOTIDE SEQUENCE, AND PROTEIN SEQUENCE OF 19-38.
RC TISSUE=Liver;
RX MEDLINE=9727957; PubMed=9133634;
RA Goto K., Yoshida K., Suzuki Y., Yamamoto K., Sinohara H.;
RT "Molecular cloning and sequencing of cDNA encoding plasma
RT countertrypin, a member of mammalian fetuin family, from the Mongolian
RT gerbil, Meriones unguiculatus."
RL J. Biochem. 121:619-625(1997).
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Expressed by the liver and secreted in plasma.
CC -!- SIMILARITY: Belongs to the fetuin family.
CC -!- SIMILARITY: Contains 2 cystatin-like domains.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; D88777; BAA13702.1; -, mRNA.
DR PIR; JC5431; JC5431.
DR InterPro; IPR000010; Prot inh cystat.
DR InterPro; IPR001363; Prot_inh_fetuin.
DR Pfam; PF00031; Cystatin; 2.
DR SMART; SM00043; CY; 2.
DR PROSITE; PS01254; FETUIN 1; 1.
DR PROSITE; PS01255; FETUIN 2; 1.
KW Direct protein sequencing; Glycoprotein; Repeat; Signal.
FT SIGNAL 1 18
FT CHAIN 19 348
FT DOMAIN 27 144
FT DOMAIN 145 254
FT CARBOHYD 99 99
FT CARBOHYD 156 156
FT CARBOHYD 176 176
FT DISULFID 32 339
FT DISULFID 89 100
FT DISULFID 114 132
FT DISULFID 146 149
FT DISULFID 208 219
FT DISULFID 230 247
SQ SEQUENCE 348 AA; 37375 MW; 62717A0F0DB2C6B1 CRC64;

```

Query Match 77.6%; Score 38; DB 1; Length 348;
Best Local Similarity 80.0%; Pred. No. 45;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 304 HAFSPVASVE 313

RESULT 7

```

FETUA RAT
ID FETUA RAT STANDARD; PRT; 352 AA.
AC P24090;
DT 01-MAR-1992 (Rel. 21, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Alpha-2-HS-glycoprotein precursor (Fetuin-A) (Glycoprotein PP63) (59
DE kDa bone sialic acid-containing protein) (BSP).
GN Name-Ahsg; Synonyms=Fetua;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]_TaxID=10116;
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=92174906; PubMed=1371750;
RA Rauth G., Poeschke O., Fink E., Eulitz M., Tippner S., Kellerer M.,
RA Haering H., Nawratil P., Haasemann M., Jahnke-Dechent W.,
RA Mueller-Esterl W.;
RT "The nucleotide and partial amino acid sequences of rat fetuin.
RT Identity with the natural tyrosine kinase inhibitor of the rat insulin
RT receptor."
RL Eur. J. Biochem. 204:523-529(1992).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=89354538; PubMed=2766355; DOI=10.1016/0092-8674(89)90098-6;
RA Auburger P., Falquerho L., Contreras J.O., Pages G., le Cam G.,
RA Rossi B., le Cam A.;
RT "Characterization of a natural inhibitor of the insulin receptor
RT tyrosine kinase: cDNA cloning, purification, and anti-mitogenic
RT activity."
RL Cell 58:631-640(1989).
RN [3]
RP NUCLEOTIDE SEQUENCE, AND SEQUENCE REVISION.
RX MEDLINE=91200667; PubMed=1849862; DOI=10.1016/0378-1119(91)90175-B;
RA Falquerho L., Patey G., Pacureau L., Rossi V., Lahuna O., Szpirer J.,
RA Szpirer C., Levan G., le Cam A.;
RT "Primary structure of the rat gene encoding an inhibitor of the
RT insulin receptor tyrosine kinase."
RL Gene 98:209-216(1991).
RN [4]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=93206661; PubMed=7681247;
RA Ohnishi T., Nakamura O., Ozawa M., Arakaki N., Muramatsu T.,
RA Daikuhara Y.;
RT "Molecular cloning and sequence analysis of cDNA for a 59 kD bone
RT sialoprotein of the rat: demonstration that it is a counterpart of
RT human alpha 2-HS glycoprotein and bovine fetuin."
RN [5]
RP PROTEIN SEQUENCE OF 19-35; 51-64; 165-180; 231-247 AND 327-348.
RC TISSUE=Mandible;
RX PubMed=1860865;
RA Ohnishi T., Arakaki N., Nakamura O., Hirono S., Daikuhara Y.;
RT "Purification, characterization, and studies on biosynthesis of a 59-
RT kDa bone sialic acid-containing protein (BSP) from rat mandible using
RT a monoclonal antibody. Evidence that 59-kDa BSP may be the rat
RT counterpart of human alpha 2-HS glycoprotein and is synthesized by
RT both hepatocytes and osteoblasts."
RL J. Biol. Chem. 266:14636-14645(1991).
RN [6]
RP IDENTITY OF PP63 WITH FETUIN.
RX MEDLINE=91190111; PubMed=1707273;
RA Haasemann M., Nawratil P., Mueller-Esterl W.;
RT "Rat tyrosine kinase inhibitor shows sequence similarity to human
RT alpha 2-HS glycoprotein and bovine fetuin."
RL Biochem. J. 274:899-902(1991).
RN [7]
RP IDENTITY OF PP63 WITH FETUIN.
RX MEDLINE=92119718; PubMed=1370655; DOI=10.1016/0092-8674(92)90200-V;
RA Brown W.M., Christie D.L., Dziegielewska K.M., Saunders N.R., Yang F.;

```



```

OX NCB1_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Xu C.S., Li W.Q., Li Y.C., Chang C.F., Zhao L.F., Ma H., Wang L.,
RA Wang S.F., Han H.P., Wang G.P., Chai L.Q., Yuan J.Y., Yang K.J.,
RA Yan H.M., Shi J.B., Rahman S., Wang Q.N., Zhang J.B.;
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.
EMBL: AY325170; AAR92571.1; -, mRNA.
DR GO: 0004869; F: cysteine protease inhibitor activity; IEA.
DR InterPro: IPR000010; Prot_inh_cysstat.
DR Pfam: PF00031; Cystatin; 2.
DR SMART: SM00043; Cy; 2.
DR PROSITE: PS01254; PETUN_1; 1.
DR PROSITE: PS01255; PETUN_2; 1.
SQ SEQUENCE 553 AA; 61484 MW; DB928694D146E375 CRC64;

Query Match 77.6%; Score 38; DB 2; Length 553;
Best Local Similarity 80.0%; Pred. No. 72;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
Db 495 HAFSPVASVE 504
:|||||
|:|||||

RESULT 10
Q4HX59 GIBZE
ID Q4HX59 GIBZE PRELIMINARY; PRT; 951 AA.
AC Q4HX59
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DE Hypothetical protein.
OS ORFNames=FG10449.1;
GN Gibberella zeae PH-1;
OC Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
OC Hypocreomycetidae; Hypocreales; Nectriaceae; Gibberella.
OX NCB1_TaxID=229533;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=PH-1;
RA Birren B., Nubaum C., Abouelleil A., Allen N., Anderson S.,
RA Archachchi H.M., Barna N., Bastien V., Bloom T., Boguslavskiy L.,
RA Boukhalter B., Butler J., Calvo S.E., Camarata J., Chang J.,
RA Choepel Y., Collymore A., Cook A., Cooke P., Corum B., Dearellano K.,
RA Diaz J.S., Dodge S., Dooley K., Dorris L., Elkins T., Engels R.,
RA Erickson J., Faro S., Ferreira P., FitzGerald M., Gage D., Galagan J.,
RA Gardyna S., Gherre S., Graham L., Grand-Pierre N., Hafez N.,
RA Hagopian D., Hagos B., Hall J., Horton L., Hulme W., Iliev I.,
RA Jaffe D., Johnson R., Jones C., Kamal M., Kamat A., Karatas A.,
RA Kells C., Landers T., Levine R., Lindblad-Toh K., Liu G., Lui A.,
RA Ma L.-J., Mabbitt R., MacLean C., Macdonald P., Major J., Manning J.,
RA Matthews C., Mauceli E., McCarthy M., Meldrim J., Meneus L.,
RA Mihova T., Mienga V., Murphy T., Naylor J., Nguyen C., Nicol R.,
RA Nielsen C.B., Norbu C., O'Connor T., O'Donnell P., O'Neil D.,
RA Oliver J., Peterson K., Phunkhang P., Pierre N., Purcell S.,
RA Rachupka A., Ramasany U., Raymond C., Retta R., Rise C., Rogov P.,
RA Roman J., Schauer S., Schuback R., Seaman S., Severy P., Smirnov S.,
RA Smith C., Spencer B., Stange-Thomann N., Stojanovic N., Stubbs M.,
RA Talamas J., Testaye S., Theodore J., Topham K., Travers M.,
RA Vassiliev H., Venkataraman V.S., Viel R., Vo A., Wang S., Wilson B.,
RA Wu X., Wyman D., Young G., Zainoun J., Zemek L., Zimmer A., Zody M.,
RA Lander E.;
RP "Fusarium graminearum genome sequence.";
RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL: AAC01000435; EAA68223.1; -; Genomic_DNA.
KW Hypothetical protein.
SQ SEQUENCE 951 AA; 105375 MW; BFA31EBB8D189DC5 CRC64;

```

```

Query Match 77.6%; Score 38; DB 2; Length 951;
Best Local Similarity 70.0%; Pred. No. 1.3e+02;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
Db 865 HSPFAGVLSLE 874
|||||
|:|||||

RESULT 11
Q89X70 BRAJA
ID Q89X70 BRAJA PRELIMINARY; PRT; 165 AA.
AC Q89X70;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE B1r0444 protein.
GN OrderedLocusNames=b1r0444;
OS Bradyrhizobium japonicum.
OC Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC Bradyrhizobiaceae; Bradyrhizobium.
OX NCB1_TaxID=375;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=USDA 110;
RX MEDLINE=22484988; PubMed=12597275;
RA Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchiyumi T.,
RA Sasamoto S., Watanabe A., Idesawa K., Iriguchi M., Kawashima K.,
RA Kohara M., Matsumoto M., Shimpo S., Tsuruoka H., Wada T., Yamada M.,
RA Tabata S.;
RT "Complete genomic sequence of nitrogen-fixing symbiotic bacterium
RT Bradyrhizobium japonicum USDA110.";
RL DNA Res. 9:189-197(2002).
DR EMBL: BA000040; BAC45709.1; -; Genomic_DNA.
DR InterPro: IPR005132; Lipoprotein_13.
DR Pfam: PF03330; DPBB_1; 1.
DR TIGRFAMs: TIGR00413; rlpA; 1.
KW Complete proteome.
SQ SEQUENCE 165 AA; 17283 MW; 72DA12AE99C2FC8B CRC64;

Query Match 75.5%; Score 37; DB 2; Length 165;
Best Local Similarity 87.5%; Pred. No. 33;
Matches 7; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPFSGVAS 8
Db 73 HSPFSGMAS 80
|||||
|:|||||

RESULT 12
Q58D17 BOVIN
ID Q58D17 BOVIN PRELIMINARY; PRT; 370 AA.
AC Q58D17;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE Leucine rich repeat neuronal 5.
GN Name=LRRN5;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCB1_TaxID=9913;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Pooled;
RX MEDLINE=21180013; PubMed=11282978; DOI=10.1101/gr.170101;
RA Smith T.P.L., Grosse W.M., Freking B.A., Roberts A.J., Stone R.T.,
RA Casas E., Wray J.E., White J., Cho J., Fahrenkrug S.C., Bennett G.L.,
RA Heaton M.P., Laegreid W.W., Rohrer G.A., Chitko-McKown C.G.,
RA Partea G., Holt I., Karamycheva S., Liang F., Quackenbush J.,
RA Keele J.W.;
RT "Sequence evaluation of four pooled-tissue normalized bovine cDNA

```

RT Libraries and construction of a gene index for cattle."
 RL Genome Res. 11:626-630(2001).
 RN (2)

RC TISSUE=POOLED;

RA Harhay G.P., Sonstegard T.S., Van Tassel C.P., Clawson M.L., T.P.L.;
 RA Heaton M.P., Keefe J.W., Snelling W.M., Weidmann R.T., Smith T.P.L.;
 RT "Sequencing and analysis of Bos taurus full-length insert cDNA
 RT clones";

RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
 DR EMBL; BT021610; AAX46457.1; -, mRNA.

DR InterPro; IPR001611; LRR.

DR InterPro; IPR003591; LRR_typ.

DR Pfam; PF00560; LRR_1; 6.

DR PRINTS; PRO0019; LEURICRPT.

DR SMART; SM00369; LRR_TYF; 7.

KW Leucine-rich repeat; Repeat.

SQ SEQUENCE 370 AA; 40791 MW; 5DBF4872C1CCFAB0 CRC64;

Query Match 75.5%; Score 37; DB 2; Length 370;
 Best Local Similarity 60.0%; Pred. No. 76;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

Db |||||:|:|:|

135 HSPAGLASLQ 144

RESULT 13

Q4WYN2 ASPFU

ID Q4WYN2 ASPFU PRELIMINARY; PRT; 389 AA.

AC Q4WYN2;

DT 13-SEP-2005 (TrEMBLrel. 31, Created)

DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)

DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)

DE Integral membrane protein.

GN ORFNames=Afu3913650;

OS Aspergillus fumigatus Af293.

OC Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;

OC Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.

OX NCBI_TaxID=330879;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RC STRAIN=Af293;

RA Nierman W., Pain A., Anderson M.J., Wortman J., Kim H.Stanley.,

RA Arroya J., Berriman M., Abe K., Archer D.B., Bermejo C., Bennett J.,

RA Bowyer P., Chen D., Collins M., Coulson R., Davies R., Dyer P.S.,

RA Farman M., Fedorova N., Fedorova N., Feldblyum T.V., Fischer R.,

RA Foster N., Fraser A., Garcia J.L., Garcia M.J., Goble A.,

RA Goldman G.H., Gomi K., Griffith-Jones S., Gwilliam R., Haas B.,

RA Haas H., Harris D., Horiuchi H., Huang J., Humphrey S., Jimenez J.,

RA Keller N., Khouri H., Kitamoto K., Kobayashi T., Kulkarni R.,

RA Kumagai T., Lafton A., Latge J.-P., Li W., Lord A., Lu C.,

RA Majores W.H., May G.S., Miller B.L., Mohamoud Y., Molina M., Monod M.,

RA Mouyna I., Mulligan S., Murphy L., O'Neil S., Paulsen I.,

RA Penava M.A., Pertea M., Price C., Pritchard B.L., Quail M.A.,

RA Rabinowitz E., Rawlins M., Rajandream M.-A., Reichard U.,

RA Renauld H., Robson G.D., Rodriguez de Cordoba S., Rodriguez-Pena J.M.,

RA Ronning C.M., Rutter S., Salzberg S.L., Sanchez M.,

RA Sanchez-Ferrero J.C., Saunders D., Seeger K., Squares R., Squares S.,

RA Takeuchi M., Tekala F., Turner G., Vazquez de Aldana C.R., Weidman J.,

RA White O., Woodward J., Yu J.-H., Fraser C., Galagan J.E., Asai K.,

RA Machida M., Hall N., Barrell B., Denning D.W.,

RT "Genomic sequence of the pathogenic and allergenic filamentous fungus

Aspergillus fumigatus";

RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.

CC -!- CAUTION: The sequence shown here is derived from an

EMB1/GenBank/DBJ whole genome shotgun (WGS) entry which is

preliminary data.

DR EMBL; AAHF01000002; EAL92221.1; -; Genomic DNA.

SQ SEQUENCE 389 AA; 41167 MW; FDD9A0DFA6A3B1D CRC64;

Query Match

75.5%; Score 37; DB 2; Length 389;

Best Local Similarity 77.8%; Pred. No. 80;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASV 9

Db |||||:|:|:|

171 HDSFGVATV 179

RESULT 14

Q9S7R7 ARATH

ID Q9S7R7 ARATH PRELIMINARY; PRT; 460 AA.

AC Q9S7R7;

DT 01-MAY-2000 (TrEMBLrel. 13, Created)

DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)

DT 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)

DE Tf6011.1 protein (MZB10.6 protein).

GN Name=Tf6011.1; Synonyms=MZB10.6;

OS Arabidopsis thaliana (Mouse-ear cress).

OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;

OC eurosids II; Brassicales; Brassicaceae; Arabidopsi.

OX NCBI_TaxID=3702;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RA Lin X., Kaul S., Town C.D., Benito M.-I., Creasy T.H., Haas B.,

RA Roming C.M., Koo H., Fujii C.Y., Utterback T.R., Barnstead M.E.,

RA Bowman C.L., White O., Nierman W.C., Fraser C.M.;

RL Submitted (JAN-2001) to the EMBL/GenBank/DBJ databases.

DR EMBL; AC010871; AAP07825.1; -; Genomic DNA.

DR EMBL; AC009326; AAD56319.1; -; Genomic DNA.

DR HSSP; O76457; 3KVT.

DR GO; GO:0016020; C:membrane; IEA.

DR GO; GO:0008076; C:voltage-gated potassium channel complex; IEA.

DR GO; GO:0005515; F:protein binding; IEA.

DR GO; GO:0005249; F:voltage-gated potassium channel activity; IEA.

DR GO; GO:0006813; P:potassium ion transport; IEA.

DR InterPro; IPR000210; BTB_POZ.

DR InterPro; IPR003131; K_tetra.

DR Pfam; PF02214; K_tetra; 1.

DR SMART; SM00225; BTB; 1.

SQ SEQUENCE 460 AA; 49278 MW; 59CCB10EE974649E CRC64;

Query Match

75.5%; Score 37; DB 2; Length 460;

Best Local Similarity 88.9%; Pred. No. 96;

Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPFGVASVE 10

Db |||||:|:|:|

452 SPFGVWSVE 460

RESULT 15

Q4WEH8 ASPFU

ID Q4WEH8 ASPFU PRELIMINARY; PRT; 487 AA.

AC Q4WEH8;

DT 13-SEP-2005 (TrEMBLrel. 31, Created)

DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)

DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)

DE Hypothetical protein.

GN ORFNames=Afu503060;

OS Aspergillus fumigatus Af293.

OC Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;

OC Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergillus.

OX NCBI_TaxID=330879;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RC STRAIN=Af293;

RA Nierman W., Pain A., Anderson M.J., Wortman J., Kim H.Stanley.,

RA Arroya J., Berriman M., Abe K., Archer D.B., Bermejo C., Bennett J.,

RA Bowyer P., Chen D., Collins M., Coulson R., Davies R., Dyer P.S.,

RA Farman M., Fedorova N., Fedorova N., Feldblyum T.V., Fischer R.,

RA Foster N., Fraser A., Garcia J.L., Garcia M.J., Goble A.,

RA Goldman G.H., Gomi K., Griffith-Jones S., Gwilliam R., Haas B.,

```

RA Haas H., Harris D., Horiuchi H., Huang J., Humphrey S., Jimenez J.,
RA Keller N., Khouri H., Kitamoto K., Kobayashi T., Kulkarni R.,
RA Kumaqari T., Lafon A., Latge J.-P., Li W., Lord A., Lu C.,
RA Majeros W.H., May G.S., Miller B.L., Mohamoud Y., Molina M., Monod M.,
RA Mouyna I., Mulligan S., Murphy L., O'Neil S., Paulsen I.,
RA Penalva M.A., Perle M., Price C., Pritchard B.L., Quail M.A.,
RA Rabinowitz E., Rawlins N., Rajandream M.-A., Reichard U.,
RA Renauld H., Robson G.D., Rodriguez de Cordoba S., Rodriguez-Pena J.M.,
RA Ronning C.M., Ruter S., Salzberg S.L., Sanchez M.,
RA Sanchez-Perrero J.C., Saunders D., Seeger K., Squares R., Squares S.,
RA Takeuchi M., Tekala F., Turner G., Vazquez de Aldana C.R., Weidman J.,
RA White O., Woodward J., Yu J.-H., Fraser C., Galagan J.E., Asai K.,
RA Machida M., Hall N., Barrell B., Denning D.W.
RT "Genomic sequence of the pathogenic and allergenic filamentous fungus
RT Aspergillus fumigatus."
RL Submitted (MAY-2005) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AAHF01000011; EAL85999.1; -; Genomic_DNA.
KW Hypothetical protein.
SQ SEQUENCE 487 AA; 53160 MW; 8FFE50F97AB80CD1 CRC64;

Query Match 75.5%; Score 37; DB 2; Length 487;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSPGCVASVE 10
|||:|:|
Db 383 HSFNGISFSE 392

RESULT 16
LRRNS_HUMAN STANDARD; PRT; 713 AA.
AC Q75325; Q5T070; Q6UXM0; Q8N182;
DT 16-OCT-2001 (Rel. 40, Created)
DT 10-MAY-2005 (Rel. 47, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Leucine-rich repeats neuronal protein 5 precursor (Glioma amplified on
DE chromosome 1 protein).
GN Name=LRRNS5; Synonyms=GAC1; ORFNames=UNQ256/PRO293;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP TISSUE=Glial tumor;
RX MEDLINE=98324709; PubMed=9662332; DOI=10.1038/sj.onc.1201828;
RA Malfroy B., Almeida A., Zhu X.X., Vogt N., Tyagi R., Muleris M.,
RA Dutrillaux A.-M., Dutrillaux B., Ross D., Hanash S.,
RT "GAC1, a new member of the leucine-rich repeat superfamily on
RT chromosome band 1q32.1, is amplified and overexpressed in malignant
RT gliomas."
RL Oncogene 16:2997-3002(1998).
RN [2]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RX MEDLINE=22887296; PubMed=12975309; DOI=10.1101/gr.1293003;
RA Clark H.P., Gurney A.L., Abaya E., Baker K., Baldwin D.T., Brush J.,
RA Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P.,
RA Eaton D., Foster J.S., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
RA Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J.,
RA Lewis L., Liao D., Mark M.R., Robbie E., Sanchez C., Schoenfeld J.,
RA Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
RA Vandlen R.L., Watanabe C., Wleand D., Woods K., Xie M.-H.,
RA Yansura D.G., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A.D.,
RA Wood W.I., Godowski P.J., Gray A.M.;
RT "The secreted protein discovery initiative (SPDI), a large-scale
RT effort to identify novel human secreted and transmembrane proteins: a
RT bioinformatics assessment."
RL Genome Res. 13:2285-2270(2003).

```

```

RN [3]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RG Human chromosome 1 international sequencing consortium;
RL Submitted (DEC-2004) to the EMBL/GenBank/DBJ databases.
RN [4]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Brain;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenman C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.P., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustin T.B., Toshiyuki S., Cañincin P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Villalón D.K., Muzny D.M., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallos D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC -!- TISSUE SPECIFICITY: Overamplified in malignant gliomas.
CC -!- SIMILARITY: Contains 1 Ig-like C2-type (immunoglobulin-like)
CC domain.
CC -!- SIMILARITY: Contains 11 LRR (leucine-rich) repeats.
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; AF030435; AAC39792.1; -; mRNA.
CC EMBL; AY358290; AAQ88657.1; -; mRNA.
CC EMBL; AL512306; CAI14096.1; -; Genomic_DNA.
CC EMBL; BC034047; AAH34047.1; -; mRNA.
CC EMBL; BC068541; AAH68541.1; -; mRNA.
CC HSP; P07359; IP9A.
CC Ensembl; ENSG00000170382; Homo sapiens.
CC HGNC; HGNC:16914; LRRNS.
CC H-InvDB; HIX0001502; -.
CC MIM; 605492; -.
CC GO; GO:0004872; F:receptor activity; TAS.
CC GO; GO:0007155; P:cell adhesion; TAS.
CC GO; GO:0007165; P:signal transduction; TAS.
CC InterPro; IPR003599; Ig.
CC InterPro; IPR007110; Ig-like.
CC InterPro; IPR003598; Ig_c2.
CC InterPro; IPR001611; LRR.
CC InterPro; IPR000483; LRR_Cterm.
CC InterPro; IPR003885; LRR_Cyst.
CC InterPro; IPR003591; LRR_Typ.
CC Pfam; PF00560; LRR_1; 9.
CC Pfam; PF01463; LRRCT; 1.
CC PRINTS; PR00019; LEURICHRPT.
CC SMART; SM00409; IG; 1.
CC SMART; SM00408; IGC2; 1.
CC SMART; SM00365; LRR_SD22; 3.
CC SMART; SM00369; LRR_Typ; 10.
CC SMART; SM00082; LRRCT; 1.
CC PROSITE; PS50935; IG_LIKE; 1.
KW Glycoprotein; Immunoglobulin domain; Leucine-rich repeat;
KW Polymorphism; Repeat; Signal; Transmembrane.
FT SIGNAL 1 18 Potential
FT CHAIN 19 713 Leucine-rich repeats neuronal protein 5.

```

```
FT TOPO DOM 19 630 Extracellular (Potential).
FT TRANSMEM 631 651 Potential.
FT TOPO DOM 652 713 Cytoplasmic (Potential).
FT REPEAT 92 115 LRR 1.
FT REPEAT 116 139 LRR 2.
FT REPEAT 140 163 LRR 3.
FT REPEAT 165 187 LRR 4.
FT REPEAT 188 211 LRR 5.
FT REPEAT 213 235 LRR 6.
FT REPEAT 236 259 LRR 7.
FT REPEAT 261 283 LRR 8.
FT REPEAT 309 333 LRR 9.
FT REPEAT 334 357 LRR 10.
FT REPEAT 359 385 LRR 11.
FT DOMAIN 422 511 Ig-like C2-type.
FT CARBOHYD 94 94 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 381 381 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 555 555 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 583 583 N-linked (GlcNAc. . .) (Potential).
FT DISULFID 445 497 By similarity.
FT VARIANT 7 7 P -> L (in dbSNP:3789044).
FT VARIANT 518 518 /FTId=VAR_021921.
L -> V (in dbSNP:3747631).
/FTId=VAR_021922.
A -> T (in Ref. 2).
V -> A (in Ref. 4; AAH34047/AAH68541).
Y -> C (in Ref. 1).
A -> P (in Ref. 4; AAH34047/AAH68541).
SEQUENCE 713 AA; 78959 MW; 8897B131F61254A CRC64;

Query Match 75.5%; Score 37; DB 1; Length 713;
Best Local Similarity 60.0%; Pred. No. 1.5e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
Db 135 HSPAGLASLQ 144
|||||:::

RESULT 17
Q7QJA7 ANOGA PRELIMINARY; PRT; 750 AA.
AC Q7QJA7;
AT 01-MAR-2004 (TrEMBLrel. 26, Created)
DT 01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE ENSANGP0000018422.
GN ORFNames=ENSANGG00000015933;
OS Anopheles gambiae str. PEST.
OC Eukaryota; Metazoa; Arthropoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Nematocera; Culicoidae; Culicidae;
OC Anophelinae; Anophelinae.
OX NCBI_TaxID=180454;
RN NUCLEOTIDE SEQUENCE.
RP STRAIN=PEST;
RC The Anopheles gambiae Sequence Committee;
RG The Anopheles gambiae re-annotation.;
RL Submitted (APR-2002) to the EMBL/GenBank/DBJ databases.
[2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=PEST;
RG The Anopheles gambiae Sequence Committee;
RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AA0801008807; EAA04464.2; -; Genomic_DNA.
DR InterPro; IPR001611; LRR.
DR InterPro; IPR000483; LRR_Cterm.
DR InterPro; IPR003885; LRR_cyst.
DR InterPro; IPR003591; LRR_typ.
DR Pfam; PF00560; LRR_1; 8.
```

```
DR PRINTS; PR00019; LEURICHRPT.
DR SMART; SM00365; LRR_SD22; 4.
DR SMART; SM00369; LRR_TYP; 8.
DR SMART; SM00082; LRRCT; 1.
SQ SEQUENCE 750 AA; 83237 MW; 2A5DDA7DBB58001A CRC64;

Query Match 75.5%; Score 37; DB 2; Length 750;
Best Local Similarity 60.0%; Pred. No. 1.6e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
Db 304 HAFSGLASLQ 313
|||||:::

RESULT 18
BACH2 HUMAN STANDARD; PRT; 841 AA.
ID BACH2_HUMAN Q9BYV9; Q59H70; Q5T793; Q9NTS5;
AC Q9BYV9; Q59H70; Q5T793; Q9NTS5;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Transcription regulator protein BACH2 (BTB and CNC homolog 2).
GN Name=BACH2;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN NUCLEOTIDE SEQUENCE [MRNA].
RP MEDLINE=20404861; PubMed=10949928; DOI=10.1038/sj.onc.1203716;
RX Sasaki S., Ito E., Toki T., Maekawa T., Kanezaki R., Umenai T.,
RA Muto A., Nagai H., Kinoshita T., Yamamoto M., Inazawa J., Taketo M.M.,
RA Nakahata T., Igarashi K., Yokoyama M.;
RT "Cloning and expression of human B cell-specific transcription factor
RT BACH2 mapped to chromosome 6q15.";
RL Oncogene 19:3739-3749(2000).
[2]
RP NUCLEOTIDE SEQUENCE [MRNA].
RX MEDLINE=21610698; PubMed=11746976; DOI=10.1002/gcc.1200;
RA Vieira S.A.D., Deininger M.W.N., Sorour A., Sinclair P., Foroni L.,
RA Goldman J.M., Melo J.V.;
RT "Transcription factor BACH2 is transcriptionally regulated by the
RT BCL/ABL oncogene.";
RL Genes Chromosomes Cancer 32:353-363(2001).
[3]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Brain;
RA Totoki Y., Toyoda A., Takeda T., Sakaki Y., Tanaka A., Yokoyama S.,
RA Ohara O., Nagase T., Kikuno F.R.;
RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
[4]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RX MEDLINE=22935763; PubMed=14574404; DOI=10.1038/nature02055;
RA Mungall A.J., Palmer S.A., Sims S.K., Edwards C.A., Ashurst J.L.,
RA Wilming L., Jones M.C., Horton R., Hunt S.E., Scott C.E.,
RA Gilbert J.G.R., Clamp M.E., Bethel G., Milne S., Ainscough R.,
RA Almeida J.P., Ambrose K.D., Andrews T.D., Ashwell R.I.S.,
RA Babbage A.K., Bagguley C.L., Bailey J., Banerjee R., Barker D.J.,
RA Barlow K.P., Bates K., Beare D.M., Beasley H., Beasley O., Bird C.P.,
RA Blakey S.E., Bray-Allen S., Brook J., Brown A.J., Brown J.Y.,
RA Burford D.C., Burrill W., Burton J., Carder C., Carter N.P.,
RA Chapman J.C., Clark S.Y., Clark G., Clee C.M., Clegg S., Cobley V.,
RA Collier R.E., Collins J.E., Colman L.K., Corby N.R., Coville G.J.,
RA Culley K.M., Dhani P., Davies J., Dunn M., Earthrowl M.E.,
RA Ellington A.E., Evans K.A., Faulkner L., Francis M.D., Frankish A.,
RA Frankland J., French L., Garner P., Garnett J., Ghori M.J.,
RA Gilby L.M., Gillson C.J., Glithero R.J., Grafham D.V., Grant M.,
RA Gribble S., Griffiths C., Griffiths M.N.D., Hall R., Hallis K.S.,
RA Hammond S., Harley J.L., Hart E.A., Heath P.D., Heathcote R.,
RA Holmes S.J., Howden P.J., Howe K.L., Howell G.R., Huckle E.,
RA Humphray S.J., Humphries M.D., Hunt A.R., Johnson C.M., Joy A.A.,
```


DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
 DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
 DE Hypothetical protein O1124_H03.28;
 GN Name=O1124_H03.28;
 OS Oryza sativa (japonica cultivar-group).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
 OC Ehrhartoideae; Oryzoideae; Oryza.
 OX NCBI_TaxID=39947;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Buell R., Yuan Q., Ouyang S., Moffat K.S., Hill J.N., Gansberger K.,
 RA Brenner M., Burgess S., Hance M., Shvartsbeyn M., Tsitrin T.,
 RA Riggs F., Heiao J., Ziemann V., Blunt S., Pai G., Vanaken S.E.,
 RA Uterback T.R., Feldblum T.V., Quackenbush J., Salzberg S.L.,
 RA White O., Fraser C.M.;
 RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RA Buell R.;
 RL Submitted (JUL-2002) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AC087852; AAK71566.1; -; Genomic_DNA.
 DR HSP; P08581; lriw.
 DR Gramene; Q94GN4; -.
 DR GO; GO:0005524; F:ATP binding; IEA.
 DR GO; GO:0004674; F:protein serine/threonine kinase activity; IEA.
 DR GO; GO:0004713; F:protein-cytosine kinase activity; IEA.
 DR GO; GO:0006468; P:protein amino acid phosphorylation; IEA.
 DR InterPro; IPR008271; Ser_Thr_kinase.
 DR InterPro; IPR001245; Tyr_kinase.
 DR PRINTS; PR00109; TYRKINASE.
 DR ProDom; PD000001; Prot_kinase; 2.
 DR PROSITE; PS00011; PROTEIN_KINASE_DOM; 1.
 DR PROSITE; PS00108; PROTEIN_KINASE_ST; 1.
 KW Hypothetical protein.
 SQ SEQUENCE 407 AA; 44124 MW; DD4CB9AC2AF3EBDC CRC64;

Query Match 73.5%; Score 36; DB 2; Length 407;
 Best Local Similarity 75.0%; Pred. No. 1.4e+02;
 Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGSVAS 8
 DB 13 HSFSGISS 20
 |||||:|

RESULT 21
 QSP0J1_AZOSE
 ID QSP0J1_AZOSE PRELIMINARY; PRT; 712 AA.
 AC QSP0J1;
 DT 01-FEB-2005 (TrEMBLrel. 29, Created)
 DT 01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
 DT 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
 DE Hybrid sensor component of two-component regulation system.
 GN OrderedLocusNames=AZOSRA30480; ORFNames=eba5371;
 OS Azocarcus sp. (strain EBNI).
 OC Bacteria; Proteobacteria; Betaproteobacteria; Rhodocyclales;
 OC Rhodocyclaceae; Azocarcus.
 OX NCBI_TaxID=76114;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA STRAIN=EBNI;
 RC PubMed=15551059; DOI=10.1007/s00203-004-0742-9;
 RA Rabus R., Kube M., Heider J., Beck A., Heitmann K., Widdel F.,
 RA Reinhardt R.;
 RT "the genome sequence of an anaerobic aromatic-degrading denitrifying
 bacterium, strain EBNI.";
 RL Arch. Microbiol. 183:27-36 (2005).
 DR EMBL; CR555306; CAI09173.1; -; Genomic_DNA.
 DR GO; GO:0016020; C:membrane; IEA.
 DR GO; GO:0005524; F:ATP binding; IEA.
 DR GO; GO:0016301; F:kinase activity; IEA.

DR GO; GO:0000155; F:two-component sensor molecule activity; IEA.
 DR GO; GO:0006468; P:protein amino acid phosphorylation; IEA.
 DR GO; GO:0000160; P:two-component signal transduction system (p. . .; IEA.
 DR InterPro; IPR003594; ATPbind ATPase.
 DR InterPro; IPR005467; His_kinase.
 DR InterPro; IPR004358; His_kin_Like_C.
 DR InterPro; IPR001610; PAC.
 DR InterPro; IPR000014; PAS.
 DR InterPro; IPR000700; PAS-assoc_C.
 DR InterPro; IPR004036; V4R.
 DR InterPro; IPR010523; XylR_N.
 DR Pfam; PF02518; HATPase_c; 1.
 DR Pfam; PF00512; HsKKA; 1.
 DR Pfam; PF00989; PAS; 2.
 DR Pfam; PF02830; V4R; 1.
 DR Pfam; PF06505; XylR_N; 1.
 DR PRINTS; PR00344; BCTRLSENSOR.
 DR SMART; SM00387; HATPase_c; 1.
 DR SMART; SM00388; HsKKA; 1.
 DR SMART; SM00086; PAC; 2.
 DR SMART; SM00091; PAS; 2.
 DR TIGRFAMs; TIGR00229; sensory_box; 2.
 DR PROSITE; PS0109; HIS_KIN; 1.
 DR PROSITE; PS0113; PAC; 1.
 DR PROSITE; PS0112; PAS; 2.
 KW Complete proteome.
 SQ SEQUENCE 712 AA; 79069 MW; 094CD507650F901 CRC64;

Query Match 73.5%; Score 36; DB 2; Length 712;
 Best Local Similarity 60.0%; Pred. No. 2.4e+02;
 Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSFSGSVASVE 10
 DB 91 HMFAGIAEVE 100
 ||:|:|

RESULT 22
 Q7PYE4_ANOGA
 ID Q7PYE4_ANOGA PRELIMINARY; PRT; 2232 AA.
 AC Q7PYE4;
 DT 01-MAR-2004 (TrEMBLrel. 26, Created)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE ENSANGP0000007937 (Fragment).
 GN ORFNames=ENSANG0000005991;
 OS Anopheles gambiae str. PEST.
 OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
 OC Neoptera; Endopterygota; Diptera; Nematocera; Culicoidae; Culicidae;
 OC Anophelinae; Anopheles.
 OX NCBI_TaxID=180454;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=PEST;
 RA Anopheles Genome Sequencing Consortium;
 RL Submitted (APR-2003) to the EMBL/GenBank/DBJ databases.
 CC -1- CAUTION: The sequence shown here is derived from an
 CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
 CC preliminary data.
 CC EMBL; AAA01008987; EAA01044.1; -; Genomic_DNA.
 DR GO; GO:0048037; F:cofactor binding; IEA.
 DR GO; GO:0016491; F:oxidoreductase activity; IEA.
 DR GO; GO:0016740; F:transferase activity; IEA.
 DR GO; GO:0008270; F:zinc ion binding; IEA.
 DR GO; GO:0006633; P:fatty acid biosynthesis; IEA.
 DR GO; GO:0008152; P:metabolism; IEA.
 DR InterPro; IPR009081; ACP_like.
 DR InterPro; IPR001227; AC_transferase.
 DR InterPro; IPR002198; ADH_short.
 DR InterPro; IPR002085; Adh_zn_family.
 DR InterPro; IPR001525; C5_DNA_meth.
 DR InterPro; IPR000794; Ketoacyl_synth.

DR InterPro: IPR006163; Phosphateth_bind.
 DR Pfam: PF00698; Acyl_transf_1; 1.
 DR Pfam: PF00106; adh_short; 1.
 DR Pfam: PF00107; ADH_zinc_N; 1.
 DR Pfam: PF00109; ketoacyl-synt; 1.
 DR Pfam: PF02801; Ketoacyl-synt_C; 1.
 DR PROSITE: PS00075; ACP_DOMAIN; 1.
 DR PROSITE: PS00606; B_KETOACYL_SYNTHASE; 1.
 DR PROSITE: PS00095; C5_MTASE_2; UNKNOWN_1.
 DR TRANSFERASE.
 FT NON_TER 2232 2232
 SQ SEQUENCE 2232 AA; 246912 MW; FB38D692F96D1136 CRC64;

Query Match 73.5%; Score 36; DB 2; Length 2232;
 Best Local Similarity 60.0%; Pred. No. 7.9e+02;

Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 |||||:
 Db 526 HSFVGIAAVQ 535

RESULT 23

CO1677 BOMMO
 ID CO1677_BOMMO PRELIMINARY; PRT; 2342 AA.
 AC CO1677;
 DT 01-JUL-1997 (TrEMBLrel. 04, Created)
 DT 01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE P260.
 OS Bombyx mori (Silk moth).
 OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
 OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
 OC Bombycidae; Bombyx.
 CX NCBI_TaxID=7091;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Kin-shu x Sho-wa;
 RA Ueno K.;
 RL Submitted (AUG-1996) to the EMBL/GenBank/DBJ databases.
 DR EMBL; U57866; AB53257.1; -, mRNA.
 DR PIR; T18200; T18200.
 DR GO; GO:0004024; F:alcohol dehydrogenase activity, zinc-dependent; IEA.
 DR GO; GO:0016740; F:transferase activity; IEA.
 DR GO; GO:0008270; F:zinc ion binding; IEA.
 DR GO; GO:0006633; P:fatty acid biosynthesis; IEA.
 DR GO; GO:0008152; P:metabolism; IEA.
 DR InterPro: IPR001227; Ac transferase.
 DR InterPro: IPR000794; Ketoacyl synth.
 DR Pfam: PF00698; Acyl_transf_1; 1.
 DR Pfam: PF00109; ketoacyl-synt; 1.
 DR Pfam: PF02801; Ketoacyl-synt_C; 1.
 DR PROSITE: PS00606; B_KETOACYL_SYNTHASE; 1.
 SQ SEQUENCE 2342 AA; 262352 MW; A9052B8DAB9F05A9 CRC64;

Query Match 73.5%; Score 36; DB 2; Length 2342;
 Best Local Similarity 60.0%; Pred. No. 8.3e+02;

Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 |||||:
 Db 583 HSFVGIAAVQ 592

RESULT 24

FABZ MANSM
 ID FABZ MANSM STANDARD; PRT; 150 AA.
 AC Q65VE3;
 DT 10-MAY-2005 (Rel. 47, Created)
 DT 10-MAY-2005 (Rel. 47, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE ((3R)-hydroxymyristoyl-[acyl carrier protein] dehydratase (EC 4.2.1.1-)
 DE ((3R)-hydroxymyristoyl ACP dehydrase).

GN Name=fabZ; OrderedLocusNames=MS0460;
 OS Mannheimia succiniciproducens (strain MBEL55E).
 OC Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
 OC Pasteurellaceae; Mannheimia.
 RX NCBI_TaxID=221988;
 RN [1]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
 RX PubMed=15378067; DOI=10.1038/nbt1010;
 RA Hong S.H., Kim J.S., Lee S.Y., In Y.H., Choi S.S., Rih J.-K.,
 RA Kim C.H., Jeong H., Hur C.G., Kim J.J.;
 RT "The genome sequence of the capnophilic rumen bacterium Mannheimia
 succiniciproducens.";
 RL Nat. Biotechnol. 22:1275-1281(2004).
 CC -!- FUNCTION: Involved in saturated fatty acids biosynthesis.
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
 CC -!- SIMILARITY: Belongs to the thioester dehydratase family.
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 DR EMBL; AE016827; AAU37067.1; -, Genomic_DNA.
 DR HAMAP; MF_00406; -, 1.
 DR InterPro; IPR010084; FabZ.
 DR TIGRFAMs; TIGR01950; fabZ; 1.
 KW Complete proteome; Lipid A biosynthesis; Lipid synthesis; Lyase.
 FT ACT_SITE 57 By similarity.
 SQ SEQUENCE 150 AA; 16861 MW; 5274EAA5EC20637B CRC64;
 Query Match 71.4%; Score 35; DB 1; Length 150;
 Best Local Similarity 77.8%; Pred. No. 77;
 Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Qy 2 SFGSGVASVE 10
 |||||:
 Db 128 SFTGVASVD 136
 RESULT 25
 Q819P1 PSOOV
 ID Q819P1_PS00V PRELIMINARY; PRT; 263 AA.
 AC Q819P1;
 DT 01-MAR-2003 (TrEMBLrel. 23, Created)
 DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Derp1 antigen (Fragment).
 OS Psoroptes ovis (Sheep scab mite).
 OC Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari;
 OC Acariformes; Sarcoptiformes; Astigmata; Psoroptidia; Sarcoptoidea;
 OC Psoroptidae; Psoroptes.
 CX NCBI_TaxID=83912;
 RN [1]
 RP NUCLEOTIDE SEQUENCE
 RX MEDLINE=22294898; PubMed=12406195;
 RX DOI=10.1046/j.1365-3024.2002.00480.x;
 RA Lee A.J., Machell J., Van Den Broek A.H.M., Nisbet A.J.,
 RA Miller H.R.P., Isaac R.E., Huntley J.F.;
 RT "Identification of an antigen from the sheep scab mite, Psoroptes
 ovis, homologous with house dust mite group I allergens.";
 RL Parasite Immunol. 24:413-422(2002).
 CC -!- SIMILARITY: Belongs to the peptidase C1 family.
 DR EMBL; AF495854; AA014671.1; -, mRNA.
 DR HSSP; P14080; 1YAL.
 DR MEROPS; C01.073; -.
 DR GO; GO:0004197; P:cysteine-type endopeptidase activity; IEA.
 DR GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
 DR InterPro; IPR00668; Peptidase_C1.
 DR InterPro; IPR000169; Pept_cys_AS.
 DR Pfam; PF00112; Peptidase_C1; 1.
 DR ProDom; PD000158; Peptidase_C1; 1.
 DR SMART; SM00645; Pept_C1; 1.

```

DR PROSITE; PS00139; THIOL_PROTEASE_CYS; 1.
FT NON TER 1
FT NON TER 263
SQ SEQUENCE 263 AA; 29576 MW; BF6DD21006DAB580 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 263;
Best Local Similarity 77.8%; Pred. No. 1.4e+02;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 SFSQGVASVE 10
Db 124 AFSQVAIVE 132

RESULT 26
Q8D751_VIBVU
ID Q8D751_VIBVU PRELIMINARY; PRT; 308 AA.
AC Q8D751;
DT 01-MAR-2003 (TrEMBLrel. 23, Created)
DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE NAD/NADP transhydrogenase beta subunit.
GN OrderedLocusNames=V20316;
OS Vibrio vulnificus.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Vibrionales;
OC Vibrionaceae; Vibrio.
OX NCBI_TaxID=672;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=CMCP6;
RA Rhee J.H., Kim S.Y., Chung S.S., Kim J.J., Moon Y.H., Jeong H.,
RA Choy H.E.;
RT "Complete genome sequence of Vibrio vulnificus CMCP6."
RL Submitted (DEC-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; AE016809; AA007276.1; -; Genomic_DNA.
DR HSP; F11024; I040.
DR GO; GO:0008746; F:NAD(P) transhydrogenase activity; IEA.
DR GO; GO:0006118; P:electron transport; IEA.
DR InterPro; IPR004003; PNT_beta.
DR Pfam; PF02233; PNTB; 1.
KW Complete proteome.
SQ SEQUENCE 308 AA; 32450 MW; 2541C7B818C5AF06 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 308;
Best Local Similarity 66.7%; Pred. No. 1.6e+02;
Matches 6; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPAGMAV 59
Db 51 HSPAGMAV 59

RESULT 27
Q9ZG15_RHOER
ID Q9ZG15_RHOER PRELIMINARY; PRT; 323 AA.
AC Q9ZG15;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Hypothetical protein.
OS Rhodococcus erythropolis.
OC Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC Corynebacterineae; Nocardiaceae; Rhodococcus.
OX NCBI_TaxID=1833;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=NI86/21;
RX MEDLINE=98440439; PubMed=9765579;
RA Nagy I., Tamura T., Vanderleyden J., Baumeister W., De Mot R.;
RT "The 20S proteasome of Streptomyces coelicolor."
RL J. Bacteriol. 180:5448-5453(1998).
DR EMBL; AF088800; AAC68687.1; -; Genomic_DNA.
KW Hypothetical protein.

SQ SEQUENCE 323 AA; 35542 MW; F1FD68B798032FD6 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 323;
Best Local Similarity 70.0%; Pred. No. 1.7e+02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 23 HSLPGVSSVE 32

RESULT 28
Q59UH0_CANAL
ID Q59UH0_CANAL PRELIMINARY; PRT; 361 AA.
AC Q59UH0;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE Potential zinc-binding dehydrogenase.
GN Name=FZD1; ORFNames=Cao19.2394;
OS Candida albicans SC5314.
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; mitosporic Saccharomycetales; Candida.
OX NCBI_TaxID=237561;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=SC5314;
RX PubMed=15123810; DOI=10.1073/pnas.0401648101;
RA Jones T., Federspiel N.A., Chibana H., Dungan J., Kalman S., Magee P.T.,
RA Magee B.B., Newport G., Thorstenson Y.R., Agabian N., Magee P.T.,
RA Davis R.W., Scherer S.;
RT "The diploid genome sequence of Candida albicans."
RL Proc. Natl. Acad. Sci. U.S.A. 101:7329-7334(2004).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=SC5314;
RA Dungan J., Kuo A., Newport G., Lan C.-Y., Iijima C., Adegbola O.,
RA Roberts J., Persson K., Donnelly S., Favoreto S., Tzung K.-W.,
RA Jones T., Scherer S., Agabian N.;
RT "Annotation of the Genome of Candida albicans."
RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AACQ01000131; BAK94110.1; -; Genomic DNA.
SQ SEQUENCE 361 AA; 39579 MW; 50CD23F3DA5FEC07 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 361;
Best Local Similarity 66.7%; Pred. No. 1.9e+02;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASV 9
Db 128 HSPFGAASI 136

RESULT 29
Q59UM3_CANAL
ID Q59UM3_CANAL PRELIMINARY; PRT; 361 AA.
AC Q59UM3;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE Potential zinc-binding dehydrogenase.
GN Name=FZD1; ORFNames=Cao19.9930;
OS Candida albicans SC5314.
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; mitosporic Saccharomycetales; Candida.
OX NCBI_TaxID=237561;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=SC5314;
RX PubMed=15123810; DOI=10.1073/pnas.0401648101;

```

```

RA Jones T., Federepiel N.A., Chibana H., Dungan J., Kalman S.,
RA Magee B.B., Newport G., Thorntonsen Y.R., Agabian N., Magee P.T.,
RA Davis R.W., Scherer S.;
RT "The diploid genome sequence of Candida albicans.";
RN Proc. Natl. Acad. Sci. U.S.A. 101:7329-7334(2004).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=SC5314;
RA Dungan J., Kuo A., Newport G., Lan C.-Y., Iijima C., Adegbola O.,
RA Roberts J., Persson K., Donnelly S., Favoreto S., Tzung K.-W.,
RA Jones T., Scherer S., Agabian N.;
RT "Annotation of the Genome of Candida albicans.";
RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AACQ01000130; FAK94161.1; -; Genomic DNA.
SQ SEQUENCE 361 AA; 39562 MW; A1F986832F7C6BA7 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 361;
Best Local Similarity 66.7%; Pred. No. 1.9e+02;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9
Db 128 HSFEGAASI 136

RESULT 30
Q7PG16 ANOQA PRELIMINARY; PRT; 413 AA.
AC Q7PG16;
DT 01-MAR-2004 (TrEMBLrel. 26, Created)
DT 01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
DE ENSANGP0000024843 (Fragment).
GN ORFNames=ENSANG0000024873;
OS Anopheles gambiae str. PEST.
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Culicidae;
OC Anophelinae; Anophelinae.
OX NCBI_TaxID=180454;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=PEST;
RG The Anopheles gambiae Sequence Committee;
RT "Anopheles gambiae re-annotation.";
RL Submitted (APR-2002) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=PEST;
RG The Anopheles gambiae Sequence Committee;
RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AAB01008859; EAA44919.2; -; Genomic DNA.
DR GO; GO:0003824; F:catalytic activity; IEA.
DR InterPro; IPR000379; Ser_estrs.
FT NON TER 1
SQ SEQUENCE 413 AA; 46354 MW; 9DE43CF8900215B6 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 413;
Best Local Similarity 60.0%; Pred. No. 2.2e+02;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 297 HSYGGVTVTE 306

RESULT 31
Q9VZ33_DROME
```

```

ID Jones T., Federepiel N.A., Chibana H., Dungan J., Kalman S.,
AC Magee B.B., Newport G., Thorntonsen Y.R., Agabian N., Magee P.T.,
DT Davis R.W., Scherer S.;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE CG1961-PA.
DE Names=CG1961; ORFNames=CG1961;
GN Drosophila melanogaster (fruit fly).
OS Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC Ephydroidea; Drosophilidae; Drosophila.
OX NCBI_TaxID=7227;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;
RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazek R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Balow R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Bencos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brotter P.,
RA Burtis K.C., Busan D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferreira S., Fleischmann W.,
RA Folsler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D.A., Heiman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Ke Z., Kennison J.A., Ketchum K.A.,
RA Jaitani B.E., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Laoko P., Lei Y., Levitsky A.A., Li J.H., Li Z., Liang Y., Lin X.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA Merkulov G., Milghina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Nelson D.R., Nelson K.A., Nixon K., Nuskern D.R., Pacle J.M.,
RA Palazolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Shue B.C., Siden-Kiamos I., Simpson M.D., Skupski M.P., Smith T.,
RA Spier B., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Wang Z.-Y., Wasserman D.A., Weinstock G.M., Weissbach J.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
RT "The genome sequence of Drosophila melanogaster.";
RL Science 287:2185-2195(2000).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=2242605; PubMed=12537568;
RA Celniker S.E., Wheeler D.A., Krommiller B., Carlson J.W., Halpern A.,
RA Patel S., Adams M., Champe M., Dugan S.P., Frise E., Hodgson A.,
RA George R.A., Hoskins R.A., Laverly T., Muzny D.M., Nelson C.R.,
RA Pacle J.M., Park S., Pfeiffer B.D., Richards S., Sodergren E.J.,
RA Svirskas R., Tabor P.E., Wan K., Stapleton M., Sutton G.G., Venter C.,
RA Weinstock G., Scherer S.E., Myers E.W., Gibbs R.A., Rubin G.M.;
RT "Finishing a whole-genome shotgun: release 3 of the Drosophila
RT melanogaster euchromatic genome sequence.";
RL Genome Biol. 3:RESEARCH0079-RESEARCH0079(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=22426070; PubMed=12537573;
RA Kaminker J.S., Bergman C.M., Krommiller B., Carlson J.W., Svirskas R.,
RA Patel S., Frise E., Wheeler D.A., Lewis S.E., Rubin G.M.,
RA Ashburner M., Celniker S.E.;
RT "The transposable elements of the Drosophila melanogaster euchromatin:
RT a genomics perspective.";
```

```

RL Genome Biol. 3:RESEARCH0084.1-RESEARCH0084.20(2002).
RN [4]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=22436069; PubMed=12537572;
RA Miera S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
RA Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
RA Smith C.D., Tupy J.L., Whitfield E.J., Bayraktaroglu L., Berman B.P.,
RA Bettencourt B.R., Celniker S.E., de Grey A.D.N.J., Drysdale R.A.,
RA Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
RA Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
RA Lewis S.E.;
RT "Annotation of the Drosophila melanogaster euchromatic genome: a
RT systematic review.";
RN Genome Biol. 3:RESEARCH0083.1-RESEARCH0083.22(2002).
RN [5]
RP NUCLEOTIDE SEQUENCE.
RG Berkeley Drosophila Genome Project;
RA Ceinkner S., Carlson J., Wan K., Pfeiffer B., Frise E., George R.,
RA Hoskins R., Stapleton M., Pacleb J., Park S., Svirskas R., Smith E.,
RA Yu C., Rubin G.;
RT "Drosophila melanogaster release 4 sequence.";
RN Submitted (MAR-2000) to the EMBL/GenBank/DBJ databases.
RN [6]
RP NUCLEOTIDE SEQUENCE.
RG FlyBase;
RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
RL EMBL: AE003485; AAF47996.2; -; Genomic DNA.
DR Ensembl; CG1961; Drosophila melanogaster.
DR FlyBase; FBgn0030284; CG1961.
DR GO; GO:0004519; F:endonuclease activity; IEA.
DR GO; GO:0016787; F:hydrolase activity; IEA.
DR GO; GO:0001666; F:nucleotide binding; IEA.
DR GO; GO:0006281; P:DNA repair; IEA.
DR GO; GO:0009166; P:nucleotide catabolism; IEA.
DR InterPro; IPR008334; 5'-Nucleotidase_C.
DR InterPro; IPR006146; 5'-Nucleotidase_N.
DR InterPro; IPR006179; 5'-Nucleotidase.
DR InterPro; IPR004843; M-pesterase.
DR Pfam; PF02872; 5' nucleotid C. 1.
DR Pfam; PF00149; Metallophosph. 1.
DR PRINTS; PR01607; APYRASEFAMLY.
DR PROSITE; PS00785; 5_NUCLEOTIDASE 1; UNKNOWN 1.
DR SEQUENCE 557 AA; 61062 MW; 6160A3B3B9A9E068 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 557;
Best Local Similarity 70.0%; Pred. No. 3e+02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
Db 374 HSPFVGMAIVE 383

RESULT 32
ID Q4S4P3 TETNG PRELIMINARY; PRT; 1176 AA.
AC Q4S4P3;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DE Chromosome 2 SCAF14738, whole genome shotgun sequence.
DE (Fragment).
GN ORFNames=GSTENG00024094001;
OS Tetraodon nigroviridis (Green puffer).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontoidea; Tetraodontidae; Tetraodon.
OX NCBI_TaxID=99883;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,

```

```

RA Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA Anthonard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA Blemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA Parra G., Lardier G., Chappie C., McKernan K.J., McEwan P., Bosak S.,
RA Kellis M., Volff J.N., Guigo R., Zody M.C., Mesirov J.,
RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA Wincker P., Lander E.S., Weissbach J., Roest Crollius H.;
RT "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT the early vertebrate proto-karyotype.";
RN Nature 431:946-957(2004).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RG Genoscope; Whitehead Institute Centre for Genome Research;
RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
CC -1- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL: CAAE01014738; CAG04389.1; -; Genomic DNA.
FT NON_TER 1 1
FT NON_TER 1176 1176
SQ SEQUENCE 1176 AA; 131745 MW; 70CF69B8CB8193B5 CRC64;

Query Match 71.4%; Score 35; DB 2; Length 1176;
Best Local Similarity 70.0%; Pred. No. 6.5e+02;
Matches 7; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
Db 626 HSPFSGVKEVE 635

RESULT 33
ID Q5XK85 XENLA PRELIMINARY; PRT; 1414 AA.
AC Q5XK85;
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE LOC494850 protein.
GN Names=LOC494850;
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RX MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative.";
RL Dev. Dyn. 225:384-391(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RX MEDLINE=223388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Vallalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J.J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,

```

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RA Klein S., Gerhard D.S.;
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC083029.1; -; mRNA.
DR GO; GO:0016787; F:hydrolase activity; IEA.
DR InterPro; IPR000408; Reg. chr. condens.
DR PROSITE; PS00626; RCC1_2; UNKNOWN 1.
SQ SEQUENCE 1414 AA; 159671 MW; D9E35F9BF6DC2162 CRC64;
Query Match 71.4%; Score 35; DB 2; Length 1414;
Best Local Similarity 70.0%; Pred. No. 7.9e+02;
Matches 7; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 HSFSGVASVE 10
DB 1079 HSGRGVKEVE 1088
RESULT 34
ID_PTRI SCHPO STANDARD; PRT; 3227 AA.
AC O13834;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE E3 ubiquitin protein ligase ptrl (EC 6.3.2.-) (Poly(A)+ RNA transport
DE protein 1).
GN Name=ptrl; ORFNames=SPAC19D5.04;
OS Schizosaccharomyces pombe (fission yeast).
OC Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;
OC Schizosaccharomycetales; Schizosaccharomycetaceae;
OC Schizosaccharomycetes.
OX NCBI_TaxID=4896;
RN [1]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RC STRAIN=972;
RX MEDLINE=21848401; PubMed=11859360; DOI=10.1038/nature724;
RA Wood V., Gwilliam R., Rajandream M.A., Lyne M.H., Lyne R., Stewart A.,
RA Sgours J.G., Peat N., Hayles J., Baker S.G., Basham D., Bowman S.,
RA Brooks K., Brown D., Brown S., Chillingworth T., Churcher C.M.,
RA Collins M., Connor R., Cronin A., Davis P., Feltwell T., Fraser A.,
RA Gentles S., Goble A., Hamlin N., Harris D.E., Hidalgo J., Hodgson G.,
RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K.,
RA James K.D., Jones L., Jones M., Leather S., McDonald S., McLean J.,
RA Mooney P., Moule S., Mungall K.L., Murphy L.D., Niblett D., Odell C.,
RA Oliver K., O'Neil S., Pearson D., Quail M.A., Rabinowitsch E.,
RA Rutherford K.M., Rutter S., Saunders D., Seeger K., Sharp S.,
RA Skelton J., Simmonds M.N., Squares R., Squares S., Stevens K.,
RA Taylor K., Taylor R.G., Tivey A., Walsh S.V., Warren T., Whitehead S.,
RA Woodward J.R., Volckaert G., Aert R., Robben J., Grymonprez B.,
RA Weltjens I., Vanstreels E., Rieger M., Schaefer M., Mueller-Auer S.,
RA Gabel C., Fuchs M., Duesterhoef A., Fritzc C., Holzer E., Moestl D.,
RA Hilbert H., Borzym K., Langer I., Beck A., Lehrach H., Reinhardt R.,
RA Pohl T.M., Eger P., Zimmermann W., Wedler H., Wambutt R., Purnelle B.,
RA Gaffeau A., Cadieu E., Drano S., Gloux S., Lelaure V., Mottier S.,
RA Galibert F., Aves S.J., Xiang Z., Hunt C., Moore K., Hurst S.M.,
RA Lucas M., Rochet M., Gaillardin C., Tallada V.A., Garzon A., Thode G.,
RA Daga R.R., Cruzado L., Jimenez J., Sanchez M., del Rey F., Benito J.,
RA Dominguez A., Revuelta J.L., Moreno S., Armstrong J., Forsburg S.L.,
RA Cerutti L., Lowe T., McCombie W.R., Paulsen I., Potashkin J.,
RA Shpakovski G.V., Ussery D., Barrell B.G., Nurse P.;
RT "The genome sequence of Schizosaccharomycetes pombe."
Nature 415:871-880(2002).

RN [2]
RP FUNCTION, AND MUTANT PTR1-1.
RX PubMed=15094387; DOI=10.1016/j.bbrc.2004.03.171;
RA Andoh T., Azad A.K., Shigematsu A., Ohshima Y., Tani T.;
RT "The fission yeast ptr1+ gene involved in nuclear mRNA export encodes
RT a putative ubiquitin ligase";
RL Biochem. Biophys. Res. Commun. 317:1138-1143(2004).
CC -!- FUNCTION: Probable ubiquitin ligase protein involved in mRNA
CC export. E3 ubiquitin ligase protein mediate ubiquitination and
CC subsequent proteasomal degradation of target proteins. Probably
CC participates in mRNA export from the nucleus by regulating the
CC transport of hnRNP proteins such as rael.
CC -!- PATHWAY: Ubiquitin conjugation; third step.
CC -!- SUBCELLULAR LOCATION: Nuclear.
CC -!- SIMILARITY: Belongs to the TOM1/PTR1 family.
CC -!- SIMILARITY: Contains 1 HECT (HEAT-type E3 ubiquitin-protein
CC ligase) domain.

CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.

DR EMBL; Z99531; CAB16714.1; -; Genomic_DNA.
DR PIR; T37964; T37964.
DR HSSP; Q05086; 1C4Z.
DR GeneDB; Spombe; SPAC19D5.04; -.
DR GO; GO:0006406; P:mRNA-nucleus export; IMP.
DR InterPro; IPR010309; DUF908 Ubiq_lig.
DR InterPro; IPR010314; DUF913_Ubiq_lig.
DR InterPro; IPR000569; HECT.
DR Pfam; PF06012; DUF908; 1.
DR Pfam; PF06025; DUF913; 1.
DR Pfam; PF06032; HECT; 1.
DR SMART; SM00119; HECTc; 1.
DR PROSITE; PS50237; HECT; 1.
KW Complete proteome; Ligase; mRNA transport; Nuclear protein; Transport;
KW Ub1 conjugation pathway.
FT DOMAIN 2891 3227 HECT.
FT COMPBIAS 1854 2017 Asp-rich.
FT ACT_SITE 3194 3194 Glycyl thioester intermediate (By
FT MUTAGEN 2887 2887 L->Q; In ptr1-1; induces defects in mRNA
FT export.
SQ SEQUENCE 3227 AA; 365035 MW; 07FC47AB79124575 CRC64;

Query Match 71.4%; Score 35; DB 1; Length 3227;
Best Local Similarity 75.0%; Pred. No. 1.9e+03;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVAS 8
DB 2504 HDFSGIAS 2511

RESULT 35
Q4HL42 CAMLA PRELIMINARY; PRT; 132 AA.
AC Q4HL42;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Transcription antitermination factor NusB.
GN Name=nusB; ORFNames=CLA0905;
OS Campylobacter lari RM2100.
OC Bacteria; Proteobacteria; Epsilonproteobacteria; Campylobacteriales;
OC Campylobacteraceae; Campylobacter.
OX NCBI_TaxID=306263;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=RM2100;
RA Fouts D.E., Mongodin E.F., Mandrell R.E., Miller W.G., Rasko D.A.,

```

RA Jacques R.J., Brinkac L.M., DeBoy R.T., Parker C.T., Daugherty S.C.,
RA Dodson R.J., Durkin A.S., Madupu R.R., Sullivan S.A., Shetty J.U.,
RA Ayodeji M.A., Shvartsbeyn A.A., Schatz M.C., Badger J.H., Fraser C.M.,
RA Nelson K.E.;
RA "Major structural and novel potential virulence mechanisms from the
RT genomes of multiple Campylobacter species.";
RA Submitted (DEC-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AAFK01000003; EAL54709.1; -; Genomic DNA.
SQ SEQUENCE 132 AA; 15088 MW; A23FCDB486DC08D0 CRC64;

Query Match 69.4%; Score 34; DB 2; Length 132;
Best Local Similarity 60.0%; Pred. No. 1.1e+02;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
| | | | |
Db 70 HKLDGVASIE 79

RESULT 36
Q9YBW4 AERPE
ID Q9YBW4 AERPE PRELIMINARY; PRT; 197 AA.
AC Q9YBW4;
DT 01-NOV-1999 (TrEMBLrel. 12, Created)
DT 01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Hypothetical protein APE1486.
GN OrderedLocusNames=APE1486;
OS Aeropyrum pernix
OC Archaea; Crenarchaeota; Thermoprotei; Desulfurococcales;
OC Desulfurococaceae; Aeropyrum.
OX NCBI_TaxID=56636;
[1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=K1.
RX MEDLINE=99310339; PubMed=10382966;
RA Kawarabayashi Y., Hino Y., Horikawa H., Yamazaki S., Haikawa Y.,
RA Jin-no K., Takahashi M., Sekine M., Baba S.-I., Ankai A., Kosugi H.,
RA Hosoyama A., Fukui S., Nagai Y., Nishijima K., Nakazawa H.,
RA Takamiya M., Masuda S., Funahashi T., Tanaka T., Kudoh Y.,
RA Tanazaki J., Kuehida N., Oguchi A., Aoki K.-I., Kubota K.,
RA Nakamura Y., Nomura N., Sako Y., Kikuchi H.;
RT "Complete genome sequence of an aerobic hyper-thermophilic
RT crenarchaeon, Aeropyrum pernix K1.";
RL DNA Res. 6:83-101(1999).
DR EMBL; BA000002; BAA80484.1; -; Genomic DNA.
DR PIR; F72628; F72628.
KW Complete proteome; Hypothetical protein.
SQ SEQUENCE 197 AA; 21009 MW; 149B82A258CC1B55 CRC64;

Query Match 69.4%; Score 34; DB 2; Length 197;
Best Local Similarity 75.0%; Pred. No. 1.6e+02;
Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 2 SFSGVASV 9
| | | | |
Db 125 SFSGTASI 132

RESULT 37
Q73LGI TREDE
ID Q73LGI TREDE PRELIMINARY; PRT; 212 AA.
AC Q73LGI;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Membrane protein, putative.
GN OrderedLocusNames=TDE1903;
OS Treponema denticola.
OC Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Treponema.

```

```

OX NCBI_TaxID=158;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=ATCC 35405 / DSM 14222;
RX PubMed=15064399; DOI=10.1073/pnas.0307639101;
RA Seshadri R., Myers G.S.A., Tettelin H., Eisen J.A., Heidelberg J.F.,
RA Dodson R.J., Davidson T.M., DeBoy R.T., Fouts D.E., Haft D.H.,
RA Selengut J., Ren Q., Brinkac L.M., Madupu R., Kolonay J.F.,
RA Durkin S.A., Daugherty S.C., Shetty J., Shvartsbeyn A.,
RA Georgegeorgis E., Geer K., Tsagaye G., Malek J.A., Ayodeji B.,
RA Shatsman S., McLeod M.P., Smajls D., Howell J.K., Pal S., Amin A.,
RA Vashisth P., McNeill T.Z., Xiang Q., Sodergren E., Baca E.,
RA Weinstein G.M., Norris S.J., Fraser C.M., Paulsen I.T.;
RT "Comparison of the genome of the oral pathogen Treponema denticola
RT with other spirochete genomes.";
RL Proc. Natl. Acad. Sci. U.S.A. 101:5646-5651(2004).
DR EMBL; AE017252; AAS12417.1; -; Genomic DNA.
DR TIGR; TDE1903; -.
KW Complete proteome.
SQ SEQUENCE 212 AA; 24653 MW; 213875EDBFC7283F CRC64;

Query Match 69.4%; Score 34; DB 2; Length 212;
Best Local Similarity 60.0%; Pred. No. 1.8e+02;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
| | | | |
Db 48 HLFSGITKVE 57

RESULT 38
Q5NRG0 ZYMO
ID Q5NRG0 ZYMO PRELIMINARY; PRT; 223 AA.
AC Q5NRG0;
DT 01-FEB-2005 (TrEMBLrel. 29, Created)
DT 01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE Glutaredoxin 2
GN Names=grxS; OrderedLocusNames=ZMO0070;
OS Zymomonas mobilis.
OC Bacteria; Proteobacteria; Alphaproteobacteria; Sphingomonadales;
OC Sphingomonadaceae; Zymomonas.
OX NCBI_TaxID=542;
RN [1]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RC STRAIN=ATCC 31821 / ZM4 / CP4;
RX PubMed=15592456; DOI=10.1038/nbt1045;
RA Seo J.-S., Chong H., Park H.S., Yoon K.-O., Jung C., Kim J.J.,
RA Hong J.H., Kim H., Kim J.-H., Kil J.-I., Park C.J., Oh H.-M.,
RA Lee J.-S., Jin S.-J., Um H.-W., Lee H.-J., Oh S.-J., Kim J.Y.,
RA Kang H.L., Lee S.-Y., Lee K.J., Kang H.S.;
RT "The genome sequence of the ethanologenic bacterium Zymomonas mobilis
RT ZM4.";
RL Nat. Biotechnol. 23:63-68(2005).
DR EMBL; AE008692; AAY8694.1; -; Genomic DNA.
DR GO; GO:0005489; F:electron transporter activity; IEA.
DR GO; GO:0045454; P:cell redox homeostasis; IEA.
DR GO; GO:0006118; P:electron transport; IEA.
DR GO; GO:0006810; P:transport; IEA.
DR InterPro; IPR011767; GLR_AS.
DR InterPro; IPR007494; Glutaredoxin2_C.
DR InterPro; IPR011901; GRXB.
DR InterPro; IPR004045; GST_Nterm.
DR InterPro; IPR012336; ThioRedoxin-like.
DR Pfam; PF04399; Glutaredoxin2_C; 1.
DR TIGRFAMs; TIGR02182; GRXB; 1.
DR PROSITE; PS00195; GLUTAREDOXIN; 1.
KW Complete proteome; Electron transport; Transport.
SQ SEQUENCE 223 AA; 25648 MW; 942FDCFA595023CF CRC64;

Query Match 69.4%; Score 34; DB 2; Length 223;
Best Local Similarity 66.7%; Pred. No. 1.9e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

```

Qy 1 HSPSGVASV 9
 |||||:|:
 Db 100 HSPSGIYSL 108

RESULT 39

Q56W18 ARATH PRELIMINARY; PRT; 270 AA.
 AC Q56W18;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
 DE Galactosidase (Fragment).
 GN NameAt3g13750;
 OS Arabidopsis thaliana (Mouse-ear cress).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
 OC eurosid II; Brassicales; Brassicaceae; Arabidopsids.
 OX NCBI_TaxID=3702;
 [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Totoki Y., Seki M., Ishida J., Nakajima M., Enju A., Kamiya A.,
 RA Narusaka M., Shin-i T., Nakagawa M., Sakamoto N., Oishi K., Kohara Y.,
 RA Kobayashi M., Toyoda A., Sakaki Y., Sakurai T., Iida K., Akiyama K.,
 RA Satou M., Toyoda T., Konagaya A., Carninci P., Kawai J.,
 RA Hayashizaki Y., Shinozaki K.
 RT "Large-scale analysis of RIKEN Arabidopsis full-length (RAFL) cDNAs";
 RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
 FR EMBL: AK222229; BAD95407.1; -, mRNA.
 FT NON_TER 1
 SQ SEQUENCE 270 AA; 29597 MW; 6BCF4538A169957A CRC64;

Query Match 69.4%; Score 34; DB 2; Length 270;
 Best Local Similarity 70.0%; Pred. No. 2.3e+02;
 Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
 |||||:
 Db 27 HSLSGSSSVE 36

RESULT 40

Q4T7J5 TETNG PRELIMINARY; PRT; 286 AA.
 AC Q4T7J5;
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
 DE Chromosome undetermined SCAF8089, whole genome shotgun sequence.
 DE (Fragment).
 GN ORFNames=GSTENG0005699001;
 OS Tetraodon nigroviridis (Green puffer).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percormorpha; Tetraodontiformes;
 OC Tetraodontidae; Tetraodontidae; Tetraodon.
 OX NCBI_TaxID=99883;
 [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
 RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
 RA Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dasat C., Segrens B.,
 RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
 RA Anthouard V., Jubin C., Castellani V., Katinka M., Vacherie B.,
 RA Bionnot C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
 RA Cruaud C., Duprat G., Brottier P., Coutanceau J.P., Gouzy J.,
 RA Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
 RA Kellis M., Wolff J.N., Guigo R., Zody M.C., Mesirov J.,
 RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
 RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
 RA Winkler P., Lander E.S., Weissbach J., Roest Crollius H.,
 RT "Genome duplication in the teleost fish Tetraodon nigroviridis reveals

RT the early vertebrate proto-karyotype.";
 RL Nature 431:946-957(2004).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RG Genoscope; Whitehead Institute Centre for Genome Research;
 RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
 CC -!- CAUTION: The sequence shown here is derived from an
 CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
 CC preliminary data.
 DR EMBL: CAAE01008089; CAF91137.1; -, Genomic_DNA.
 FT NON_TER 1
 SQ SEQUENCE 286 AA; 32391 MW; 79A2DCFC272A7F47 CRC64;
 Query Match 69.4%; Score 34; DB 2; Length 286;
 Best Local Similarity 75.0%; Pred. No. 2.4e+02;
 Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVAS 8
 |||||:
 Db 189 HSPAGVAN 196

RESULT 41

Q27496 CAEEL PRELIMINARY; PRT; 291 AA.
 AC Q27496;
 DT 01-NOV-1996 (TrEMBLrel. 01, Created)
 DT 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Serine/threonine protein phosphatase (EC 3.1.3.16).
 GN ORFNames=F25B3.4;
 OS Caenorhabditis elegans.
 OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
 OC Rhabditidae; Peloderinae; Caenorhabditis.
 OX NCBI_TaxID=6239;
 RN [1]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
 RC STRAIN=Bristol N2;
 RX MEDLINE=99069613; PubMed=9851916;
 RG The C. elegans sequencing consortium;
 RT "Genome sequence of the nematode C. elegans: a platform for
 RT investigating biology.";
 RL Science 282:2012-2018(1998).
 CC -!- CATALYTIC ACTIVITY: A phosphoprotein + H(2)O = a protein +
 CC phosphate.
 CC -!- SIMILARITY: Belongs to the PPP phosphatase family.
 CC EMBL: Z70752; CAA94756.1; -, Genomic_DNA.
 DR PIR: T21322; T21322.
 DR HSP; P36873; IIT6.
 DR Ensembl; F25B3.4; Caenorhabditis elegans.
 DR WormBase; WBGene0009101; F25B3.4.
 DR WormPep; F25B3.4; CE05714.
 DR GO; GO:0016787; F:hydrolase activity; IEA.
 DR GO; GO:0004721; F:phosphoprotein phosphatase activity; IEA.
 DR InterPro; IPR004843; M-pesterase.
 DR InterPro; IPR006186; T_phntase_apah.
 DR Pfam; PF00149; Metallophospho; 1.
 DR PRINTS; PR00114; STPHPTASE.
 DR SMART; SM00156; PP2AC; 1.
 DR PROSITE; PS00125; SER_THR_PHOSPHATASE; UNKNOWN 1.
 KW Complete proteome; Hydrolase; Hypothetical protein; Iron.
 SQ SEQUENCE 291 AA; 33700 MW; 8561AA031886987B CRC64;

Query Match 69.4%; Score 34; DB 2; Length 291;
 Best Local Similarity 77.8%; Pred. No. 2.5e+02;
 Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPSGVASV 9
 |||||:
 Db 128 HSPGQVFSV 136

RESULT 42

```

Q9XZ73_RALSO
ID Q9XZ73_RALSO PRELIMINARY; PRT; 294 AA.
AC Q9XZ73;
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE PROBABLE PHOSPHATE TRANSMEMBRANE ABC TRANSPORTER PROTEIN.
GN Name=psta; OrderedLocNames=RSC1531; ORFNames=RS03773;
OS Ralstonia solanacearum (Pseudomonas solanacearum).
OC Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC Burkholderiaceae; Ralstonia.
OX NCBI_TaxID=305;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=GM11000;
RA MEDLINE=21681879; PubMed=11823852; DOI=10.1038/415497a;
RA Salancubut M., Genin S., Artiguenave P., Gouzy J., Mangenot S.,
RA Ariat M., Billault A., Brottier P., Camus J.C., Cattolico L.,
RA Chandler M., Choisme N., Claudel-Renard C., Cunnac S., Demange N.,
RA Gaspin C., Lavie M., Moisan A., Robert C., Saurin W., Schiex T.,
RA Sigquier P., Thebault P., Whalen M., Wincker P., Levy M.,
RA Weissenbach J., Boucher C.A.;
RA "Genome sequence of the plant pathogen Ralstonia solanacearum.";
RT Nature 415:497-502(2002).
RL
CC -1- FUNCTION: Part of a binding-protein-dependent transport system.
CC Probably responsible for the translocation of the substrate across
CC the membrane (By similarity).
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
CC -1- SIMILARITY: Belongs to the binding-protein-dependent transport
CC system permease family.
DR EMBL; AL646065; CAD15233.1; -; Genomic DNA.
DR GO; GO:0019866; C:inner membrane; IEA.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0005315; F:inorganic phosphate transporter activity; IEA.
DR GO; GO:0015114; F:phosphate transporter activity; IEA.
DR GO; GO:0005215; F:phosphate transporter activity; IEA.
DR GO; GO:0006817; F:phosphate transport; IEA.
DR GO; GO:0006810; P:transport; IEA.
DR InterPro; IPR000515; BPD transp.
DR Pfam; PF00528; BPD_transp_1;
DR TIGRPFAMs; TIGR00974; 3a0107s02c; 1.
DR PROSITE; PS50928; ABC_TM1; 1.
KW Complete proteome; Transmembrane; Transport.
SQ SEQUENCE 294 AA; 31443 MW; AFCB03B2AA581AB2 CRC64;

Query Match 69.4%; Score 34; DB 2; Length 294;
Best Local Similarity 66.7%; Pred. No. 2.5e+02;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPFGVASV 9
Db 150 HHFGGIAGV 158
| | | | |
1 HSPFGVASV 9
150 HHFGGIAGV 158

RESULT 43
EURL1_EURMA STANDARD; PRT; 321 AA.
AC P25780; Q9TZ23; Q9TZ24; Q9UBA0;
DT 01-MAY-1992 (Rel. 22, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Mite group 1 allergen Eur m 1 precursor (EC 3.4.22.-) (Eur m I).
GN Name=EURL1;
OS Euroglyphus maynei (Mayne's house dust mite).
OC Eukaryota; Metazoa; Arthropoda; Chelicerata; Acari;
OC Acariformes; Sarcophormes; Astigmata; Psoroptidia; Analgoidea;
OC Pyroglyphidae; Euroglyphus.
OX NCBI_TaxID=6958;
RN [1]
RP NUCLEOTIDE SEQUENCE (EUR M 1.0101 AND EUR M 1.0102).
RX MEDLINE=99126275; PubMed=9925958; DOI=10.1159/000024026;
RA Smith W., Mills K., Hazell L., Hart B.J., Thomas W.;

"Molecular analysis of the group 1 and 2 allergens from the house dust
mite, Euroglyphus maynei.";
Int. Arch. Allergy Immunol. 118:15-22(1999).
[2]
NUCLEOTIDE SEQUENCE OF 99-309.
MEDLINE=93130112; PubMed=1483062;
Kant N.A., Hill M.R., Keen J.N., Holland P.W., Hart B.J.;
"molecular characterisation of group I allergen Eur m I from house
dust mite Euroglyphus maynei";
Int. Arch. Allergy Immunol. 99:150-152(1992).
CC -1- FUNCTION: Probable thiol protease.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- ALLERGEN: Causes an allergic reaction in human. Common symptoms of
CC mite allergy are bronchial asthma, allergic rhinitis and
CC conjunctivitis.
CC -1- SIMILARITY: Belongs to the peptidase C1 family.
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; AF047610; AAC82351.1; -; mRNA.
CC EMBL; AF047611; AAC82352.1; -; ALT_INIT; mRNA.
CC EMBL; AF047612; AAC82353.1; -; mRNA.
CC EMBL; X60073; CAA42677.1; -; Genomic DNA.
CC PIR; S21864; S21864.
CC HSP; P53634; 1K3B.
CC MEROPS; C01.073; -.
CC InterPro; IPR000169; Pept_cys_AS.
CC InterPro; IPR000668; Peptidase C1.
CC PANTHER; PTHR12411; Peptidase C1; 1.
CC Pfam; PF00112; Peptidase_C1; 1.
CC PRINTS; PR00705; PAPAIN_C1; 1.
CC ProDom; PD000158; Peptidase_C1; 1.
CC SMART; SM00645; Pept_C1; 1.
CC PROSITE; PS00640; THIOI_PROTEASE_ASN; 1.
CC PROSITE; PS00139; THIOI_PROTEASE_CYS; 1.
CC PROSITE; PS00639; THIOI_PROTEASE_HIS; 1.
KW Allergen; Glycoprotein; Hydrolase; Protease; Signal; Thiol protease;
KW Zymogen.
FT SIGNAL 1 18 Potential.
FT PROPEP 19 98
FT CHAIN 99 321 Mite group 1 allergen Eur m 1.
FT ACT_SITE 133 133 By similarity.
FT ACT_SITE 269 269 By similarity.
FT ACT_SITE 289 289 By similarity.
FT CARBOHYD 34 34 N-linked (GlcNAc..) (Potential).
FT CARBOHYD 151 151 N-linked (GlcNAc..) (Potential).
FT DISULFID 130 170 By similarity.
FT VARIANT 36 36 T -> S (in Eur m 1.0102).
FT VARIANT 126 126 M -> N (in Eur m 1.0102).
FT VARIANT 320 320 M -> I (in Eur m 1.0102).
SQ SEQUENCE 321 AA; 36290 MW; 6CFD44FEC725999E CRC64;

Query Match 69.4%; Score 34; DB 1; Length 321;
Best Local Similarity 77.8%; Pred. No. 2.7e+02;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SFGVASVE 10
Db 135 AFGVASVE 143
| | | | |
2 SFGVASVE 10
135 AFGVASVE 143

RESULT 44
O25902_HELPY
ID O25902_HELPY PRELIMINARY; PRT; 330 AA.
AC O25902;
DT 01-JAN-1998 (TrEMBLrel. 05, Created)
DT 01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Glyceraldehyde-3-phosphate dehydrogenase (Gap).

```


GN OrderedLocusNames=HP1346;
OS Helicobacter pylori (Campylobacter pylori).
OC Bacteria; Proteobacteria; Epsilonproteobacteria; Campylobacteriales;
OC Helicobacteraceae; Helicobacter.
OX NCBI_TaxID=210;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=26695 / ATCC 700392;
RX MEDLINE=97394467; PubMed=9252185; DOI=10.1038/41483;
RA Tomb J.-F., White O., Keriavage A.R., Clayton R.A., Sutton G.G.,
RA Fleischmann R.D., Ketchum K.A., Klenk H.-P., Gill S.R.,
RA Dougherty B.A., Nelson K.E., Quackenbush J., Zhou L., Kirkness E.F.,
RA Peterson S.N., Loftus B.J., Richardson D.L., Dodson R.J., Khalak H.G.,
RA Glöck A., McKenney K., Fitzgerald L.M., Lee N., Adams M.D.,
RA Hickey E.K., Berg D.E., Gocayne J.D., Utterback T.R., Peterson J.D.,
RA Watthey L., Wallin E., Hayes W.S., Borodovsky M., Karp P.D.,
RA Smith H.O., Fraser C.M., Venter J.C.;
RT "The complete genome sequence of the gastric pathogen Helicobacter
RT pylori";
RL Nature 388:539-547(1997).
CC -!- SIMILARITY: Belongs to the glyceraldehyde-3-phosphate
CC dehydrogenase family.
DR EMBL; AE000635; AAD08387.1; -; Genomic_DNA.
DR PIR; B64688; B64688.
DR HSSP; P00362; INQO.
DR TIGR; HP1346; -.
DR GO; GO:0005737; C:cytoplasm; IEA.
DR GO; GO:0004365; F:glyceraldehyde-3-phosphate dehydrogenase (p. . .); IEA.
DR GO; GO:0051287; F:NAD binding; IEA.
DR GO; GO:0016491; F:oxidoreductase activity; IEA.
DR GO; GO:0006006; F:glucose metabolism; IEA.
DR GO; GO:0006096; P:glycolysis; IEA.
DR InterPro; IPR006424; GAPDH-like.
DR InterPro; IPR011596; GAPDH like.
DR PANTHER; PTHR10836; GAP_dh_C; 1.
DR Pfam; PF02800; Gp_dh_C; 1.
DR Pfam; PF00044; Gp_dh_N; 1.
DR PRINTS; PR00078; G3PDHHRGNASE.
DR ProDom; PD007761; GAPDH like; 1.
DR TIGRFAMs; TIGR01534; GAPDH-I; 1.
DR Complete proteome; Oxidoreductase.
DR TIGRFAMs; TIGR00524; eIF-2B_rel; 1.
SQ SEQUENCE 330 AA; 36021 MW; C5053242830CB8D5 CRC64;
Query Match 69.4%; Score 34; DB 2; Length 330;
Best Local Similarity 50.0%; Pred. No. 2.8e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Qy 1 HSPSGVASVE 10
|:|:|:|:
Db 264 HAFKGVWSID 273
RESULT 45
Q9ZJPO_HELPJ PRELIMINARY; PRT; 330 AA.
AC Q9ZJPO;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE.
GN Name=gap_2; OrderedLocusNames=JHP1265;
OS Helicobacter pylori J99 (Campylobacter pylori J99).
OC Bacteria; Proteobacteria; Epsilonproteobacteria; Campylobacteriales;
OC Helicobacteraceae; Helicobacter.
OX NCBI_TaxID=85963;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=99120557; PubMed=9923682; DOI=10.1038/16495;
RA Alm R.A., Ling L.-S.L., Moir D.T., King B.L., Brown E.D., Doig P.C.,
RA Smith D.R., Noonan B., Guild B.C., deJonge B.L., Carmel G.,
RA Tummino P.J., Caruso A., Uria-Nickelsen M., Mills D.M., Ives C.,
RA Gibson R., Merberg D., Mills S.D., Jiang Q., Taylor D.E., Vovis G.F.,
RA Trust T.J.;
RT "Genomic sequence comparison of two unrelated isolates of the human
RT gastric pathogen Helicobacter pylori";
RL Nature 397:176-180(1999).
CC -!- SIMILARITY: Belongs to the glyceraldehyde-3-phosphate
CC dehydrogenase family.
DR EMBL; AE001549; AAD06838.1; -; Genomic_DNA.
DR PIR; C71830; C71830.
DR HSSP; P00362; 4DBV.
DR GO; GO:0005737; C:cytoplasm; IEA.
DR GO; GO:0004365; F:glyceraldehyde-3-phosphate dehydrogenase (p. . .); IEA.
DR GO; GO:0051287; F:NAD binding; IEA.
DR GO; GO:0016491; F:oxidoreductase activity; IEA.
DR GO; GO:0006006; P:glucose metabolism; IEA.
DR GO; GO:0006096; P:glycolysis; IEA.
DR InterPro; IPR006424; GAPDH-I.
DR InterPro; IPR011596; GAPDH like.
DR PANTHER; PTHR10836; GAP_dh_C; 1.
DR Pfam; PF02800; Gp_dh_C; 1.
DR Pfam; PF00044; Gp_dh_N; 1.
DR PRINTS; PR00078; G3PDHHRGNASE.
DR ProDom; PD007761; GAPDH like; 1.
DR TIGRFAMs; TIGR01534; GAPDH-I; 1.
DR Complete proteome; Oxidoreductase.
DR TIGRFAMs; TIGR00524; eIF-2B_rel; 1.
SQ SEQUENCE 330 AA; 36003 MW; 2581D417C4112043 CRC64;
Query Match 69.4%; Score 34; DB 2; Length 330;
Best Local Similarity 50.0%; Pred. No. 2.8e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Qy 1 HSPSGVASVE 10
|:|:|:|:
Db 264 HAFKGVWSID 273
RESULT 46
Q606P2_METCA PRELIMINARY; PRT; 352 AA.
AC Q606P2;
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Initiation factor 2 subunit family protein.
GN OrderedLocusNames=MCA1374;
OS Methylococcus capsulatus.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Methylococcales;
OC Methylococcaceae; Methylococcus.
OX NCBI_TaxID=414;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Bath / NCIMB 11132;
RX PubMed=15383840; DOI=10.1371/journal.pbio.0020303;
RA Ward N.L., Larsen O., Sakwa J., Bruseh L., Khouri H.M., Durkin A.S.,
RA Dimitrov G., Jiang L., Scanlan D., Kang K.H., Lewis M.R., Nelson K.E.,
RA Methe B.A., Wu M., Heidelberg J.F., Paulsen I.T., Fouts D.E.,
RA Ravel J., Tettelin H., Ren Q., Read T.D., DeBoy R.T., Seehadri R.,
RA Salzberg S.L., Jensen H.B., Birkeland N.K., Nelson W.C., Dodson R.J.,
RA Grindhaug S.H., Holt I.E., Eidhammer I., Jonassen I., Vanaken S.,
RA Uterback T.R., Feldblyum T.V., Fraser C.M., Lillehaug J.R.,
RA Eisen J.A.;
RT "Genomic insights into methanotrophy: the complete genome sequence of
RT Methylococcus capsulatus (Bath)";
RL PLoS Biol. 2:1616-1628(2004).
DR EMBL; AE017282; AAU92002.1; -; Genomic_DNA.
DR TIGR; MCA1974; -.
DR GO; GO:0003743; P:translation initiation factor activity; IEA.
DR GO; GO:0044249; P:cellular biosynthesis; IEA.
DR InterPro; IPR000649; IF-2B.
DR InterPro; IPR011559; IF-2B_rel.
DR Pfam; PF01008; IF-2B; 1.
DR TIGRFAMs; TIGR00524; eIF-2B_rel; 1.

KW Complete proteome; Initiation factor.
SQ SEQUENCE 352 AA; 37081 MW; FCB9945B6E6F98F9 CRC64;

Query Match 69.4%; Score 34; DB 2; Length 352;
Best Local Similarity 60.0%; Pred. No. 3e+02;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||||:|:
Db 4 HSFSAVSQV 13

RESULT 47

ID Q5SR52 CRYNE PRELIMINARY; PRT; 374 AA.
AC Q5SR52;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Hypothetical protein.
GN ORFNames=CNB84590;
OS Cryptococcus neoformans var. neoformans B-3501A.
OC Eukaryota; Fungi; Basidiomycota; Hymenomycetes; Heterobasidiomycetes;
OC Tremellomycetidae; Tremellales; Tremellaceae; Filobasidiella.
OX NCBI_TaxID=283643;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=B-3501A; Bruno D., Miranda M., Fukushima M.,
RA Fung E., Hyman R.W., Rowley D., Davis R.W.;
RA Wickes B.L., Fu J., Davis R.W.;
RT "Cryptococcus neoformans serotype D sequencing."
RL Submitted (JUL-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
DR EMBL; AA050100028; EAL20539.1; -; Genomic_DNA.
KW Hypothetical protein.
SQ SEQUENCE 374 AA; 40344 MW; B07E2DE2AC577B1F CRC64;

Query Match 69.4%; Score 34; DB 2; Length 374;
Best Local Similarity 66.7%; Pred. No. 3.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9
|||||:
Db 135 HSPAGVSL 143

RESULT 48

ID Q5KZ15 GEOKA PRELIMINARY; PRT; 383 AA.
AC Q5KZ15;
DT 01-FEB-2005 (TrEMBLrel. 29, Created)
DT 01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE Spore germination protein.
GN OrderedLocusNames=GK1616;
OS Geobacillus kaustophilus.
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Geobacillus.
OX NCBI_TaxID=1462;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=HTA426;
RX PubMed=15576355; DOI=10.1093/nar/gkh970;
RA Takami H., Takaki Y., Chee G.-J., Nishi S., Shimamura S., Suzuki H.,
RA Matsui S., Uchiyama I.;
RT "Thermoadaptation trait revealed by the genome sequence of
RT thermophilic Geobacillus kaustophilus";
RL Nucleic Acids Res. 32:6292-6303(2004).
DR EMBL; BA000043; BAD75901.1; -; Genomic_DNA.
KW Complete proteome.
SQ SEQUENCE 383 AA; 43647 MW; BA7F48D2B7F21FB1 CRC64;

Query Match 69.4%; Score 34; DB 2; Length 383;
Best Local Similarity 77.8%; Pred. No. 3.3e+02;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SPSGVSASVE 10
|||||:
Db 50 SPSGLAKVE 58

RESULT 49

ID Q7W8N5 BORPA PRELIMINARY; PRT; 402 AA.
AC Q7W8N5;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Putative branched-chain amino acid transporter substrate-binding
DE protein.
GN OrderedLocusNames=BPP2097;
OS Bordetella parapertussis.
OC Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC Alcaligenaceae; Bordetella.
OX NCBI_TaxID=519;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=12822 / ATCC BAA-587;
RC MEDLINE=22827954; PubMed=12910271; DOI=10.1038/ng1227;
RA Parkhill J.E., Sebahia M., Preston A., Murphy L.D., Thomson N.R.,
RA Harris D.E., Holden M.T.G., Church C.M., Bentley S.D., Mungall K.L.,
RA Cardeno-Tarraga A.-M., Temple L., James K.D., Harris B., Quail M.A.,
RA Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I.,
RA Chillingworth T., Collins M., Cronin A., Davis P., Doggett J.,
RA Feltwell T., Goble A., Hamlin N., Hauser H., Holtroyd S., Jagels K.,
RA Leather S., Moutle S., Norberczak H., O'Neill S., Ormond D., Price C.,
RA Rabinowitsch E., Rutter S., Sanders M., Saunders D., Seeger K.,
RA Sharp S., Simmonds M., Skelton J., Squares R., Squares K., Stevens K.,
RA Unwin L., Whitehead S., Barrell B.G., Maskell D.J.;
RT "Comparative analysis of the genome sequences of Bordetella pertussis,
RT Bordetella parapertussis and Bordetella bronchiseptica.";
RL Nat. Genet. 35:32-40(2003).
DR EMBL; BX40429; CAE37397.1; -; Genomic_DNA.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0030288; C:periplasmic space (sensu Gram-negative Bact. .; IEA.
DR GO; GO:0005279; F:amino acid-polyamine transporter activity; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0006865; P:amino acid transport; IEA.
DR InterPro; IPR001828; ANF_receptor.
DR InterPro; IPR000709; Leu_ile_Val_bind.
DR Pfam; PF01094; ANF_receptor; 1.
DR PRINTS; PR00337; LEUILEVALBP.
KW Complete proteome.
SQ SEQUENCE 402 AA; 43150 MW; 4F7AD09DDFBCEDD CRC64;

Query Match 69.4%; Score 34; DB 2; Length 402;
Best Local Similarity 70.0%; Pred. No. 3.4e+02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|||||
Db 315 HAASGVADVE 324

RESULT 50

ID Q7WM99 BORBR PRELIMINARY; PRT; 402 AA.
AC Q7WM99;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Putative branched-chain amino acid transporter substrate-binding
DE protein.
GN OrderedLocusNames=BB1493;
OS Bordetella bronchiseptica (Alcaligenes bronchisepticus).

```

OC Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC Alcaligenaceae; Bordetella.
OX NCBI_TaxID=518;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=RE50 / ATCC BAA-588;
RX MEDLINE=22827954; PubMed=12910271; DOI=10.1038/ng1227;
RA Parkhill J., Sebahia M., Preston A., Murphy L.D., Thomson N.R.,
RA Harris D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L.,
RA Cordero-Tarraga A.-M., Temple L., James K.D., Harris B., Quail M.A.,
RA Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I.,
RA Chillingworth T., Collins M., Cronin A., Davies P., Doggett J.,
RA Feltwell T., Goble A., Hamlin N., Hauser H., Holroyd S., Jagels K.,
RA Leather S., Moule S., Norbertczak H., O'Neill S., Ormond D., Price C.,
RA Rabinowitsch E., Rutter S., Sanders M., Saunders D., Seeger K.,
RA Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K.,
RA Unwin L., Whitehead S., Barrell B.G., Maskell D.J.;
RT "Comparative analysis of the genome sequences of Bordetella pertussis,
RT Bordetella parapertussis and Bordetella bronchiseptica.";
RL Nat. Genet. 35:32-40(2003).
DR EMBL; BX640441; CAE31990.1; -; Genomic DNA.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0030288; C:periplasmic space (sensu Gram-negative Bact...; IEA.
DR GO; GO:0005279; F:amino acid-polyamine transporter activity; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0006865; P:amino acid transport; IEA.
DR InterPro; IPR001828; ANF receptor.
DR InterPro; IPR000709; Leu_Ile_Val_bind.
DR Pfam; PF01094; ANF receptor; 1.
DR PRINTS; PR00337; LEUILEVALBP.
KW Complete proteome.
SQ SEQUENCE 402 AA; 43150 MW; AAC86E9DD190CA5D CRC64;

Query Match 69.4%; Score 34; DB 2; Length 402;
Best Local Similarity 70.0%; Pred. NO. 3.4e+02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSFGVAVSE 10
Db 315 HAAGVADVE 324

```

Search completed: April 5, 2006, 17:43:09
 Job time : 236 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2006, 17:39:33 ; Search time 38 Seconds
(without alignments)
25.320 Million cell updates/sec

Title: US-10-772-537-4

Perfect score: 49

Sequence: 1 HSPSGVASVE 10

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : PIR 80.*

1: p1r1.*

2: p1r2.*

3: p1r3.*

4: p1r4.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	49	100.0	362	2	S22395
2	46	93.9	359	2	A35714
3	46	93.9	364	2	S22394
4	38	77.6	345	2	S21094
5	38	77.6	348	2	JC5431
6	38	77.6	375	2	A32827
7	36	73.5	215	2	G83184
8	36	73.5	2342	2	T18200
9	35	71.4	3227	2	T37964
10	34	69.4	197	2	F72628
11	34	69.4	211	2	S21864
12	34	69.4	291	1	T21322
13	34	69.4	330	2	B64688
14	34	69.4	330	2	C71830
15	34	69.4	462	2	T19652
16	34	69.4	724	2	T04340
17	34	69.4	1558	2	A82457
18	33	67.3	94	2	S03380
19	33	67.3	128	2	T15911
20	33	67.3	149	2	A12669
21	33	67.3	149	2	G97451
22	33	67.3	150	2	S17702
23	33	67.3	258	2	D83190
24	33	67.3	460	2	G90890
25	33	67.3	460	2	B85727
26	33	67.3	460	2	E84902
27	33	67.3	535	2	S19729
28	33	67.3	890	2	C96654
29	33	67.3	901	2	G71286

30	67.3	1209	2	T52523	hypothetical prote
31	65.3	239	1	B69406	probable 3-isoprop
32	65.3	257	2	G86710	conserved hypothet
33	65.3	329	2	T45849	peroxidase ATP21a
34	65.3	394	2	T31121	hypothetical prote
35	65.3	417	2	T23013	hypothetical prote
36	65.3	437	2	D82614	glycinamide ribonu
37	65.3	455	2	T42670	hypothetical prote
38	65.3	458	2	E82444	NAD(P) transhydrog
39	65.3	461	2	A81885	probable NAD(P) tr
40	65.3	461	2	C81137	NAD(P) transhydrog
41	65.3	462	1	DEECXB	NAD(P) transhydrog
42	65.3	462	2	A10682	NAD(P) transhydrog
43	65.3	462	2	A85766	NAD(P) transhydrog
44	65.3	462	2	D90917	NAD(P) transhydrog
45	65.3	464	2	AG0280	NAD(P) transhydrog
46	65.3	465	2	B71716	transhydrogenase c
47	65.3	465	2	H97712	hypothetical prote
48	65.3	474	2	F64119	NAD(P) transhydrog
49	65.3	480	2	S77206	NAD(P) transhydrog
50	65.3	481	2	A97659	pyridine nucleotid
51	65.3	481	2	AC2883	NAD(P)+ transhydro
52	65.3	502	2	AD3563	erythritol-4-phosp
53	65.3	526	2	C84552	hypothetical prote
54	65.3	610	2	JC7315	myoneurin - human
55	65.3	835	2	T06590	probable beta-gala
56	65.3	1023	2	T18520	transhydrogenase h
57	65.3	1083	2	T18298	pyridine nucleotid
58	65.3	1084	2	T18292	nicotinamide nucle
59	65.3	1134	1	A29944	chaoptin precursor
60	65.3	1248	2	T30877	adenylate cyclase
61	65.3	1313	2	T30548	adenylate cyclase
62	65.3	125	2	T34575	hypothetical prote
63	65.3	175	1	S74361	diacylglycerol kin
64	65.3	175	1	G83483	probable sigma-70
65	65.3	215	2	A10638	conserved hypothet
66	65.3	218	2	F81650	UDP-N-acetylglucos
67	65.3	225	2	G72387	conserved hypothet
68	65.3	245	2	J00337	allergen Der p 1 -
69	65.3	249	2	AE0118	hypothetical prote
70	65.3	272	2	T34826	hypothetical prote
71	65.3	292	2	H82955	hypothetical prote
72	65.3	305	2	T08460	hypothetical prote
73	65.3	305	2	D71656	proteainase IV (spp
74	65.3	319	2	A61500	allergen Der f I p
75	65.3	334	2	T23444	hypothetical prote
76	65.3	352	2	T03845	probable sterol 24
77	65.3	359	2	T42087	probable 6-phospho
78	65.3	384	2	T32756	hypothetical prote
79	65.3	384	2	T26070	hypothetical prote
80	65.3	404	2	A36865	ammonium transport
81	65.3	407	2	C69023	conserved hypothet
82	65.3	427	2	AE1305	conserved hypothet
83	65.3	433	2	H82075	pho4 family protei
84	65.3	435	2	A46231	helix-loop-helix p
85	65.3	441	2	A45565	cysteine proteinase
86	65.3	483	2	T04453	hypothetical prote
87	65.3	494	1	B45738	alpha-amylase (EC
88	65.3	494	2	AD0751	cytoplasmic alpha-
89	65.3	495	2	B71311	probable thiophene
90	65.3	502	2	H84686	probable ATP-depen
91	65.3	520	2	C81273	hypothetical prote
92	65.3	521	1	T17196	IMP dehydrogenase
93	65.3	627	2	T02197	hypothetical prote
94	65.3	645	2	H96011	asparagine synthas
95	65.3	748	2	C82529	conserved hypothet
96	65.3	785	2	S73098	aminopeptidase (EC
97	65.3	942	2	T39624	6-phosphofructokin
98	65.3	1108	2	JC4037	alpha-mannosidase
99	65.3	1312	1	BWBYDL	RAD50 protein - ye
100	65.3	1369	2	T32338	hypothetical prote

ALIGNMENTS

RESULT 1

S22395
 fetuin precursor - pig (fragment)
 C:Species: Sus scrofa domestica (domestic pig)
 C>Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 09-Jul-2004
 C:Accession: S22395; S22142
 R:Brown, W.M.; Dziegielewska, K.M.; Saunders, N.R.; Christie, D.L.; Nawratil, P.; Mueller
 Eur. J. Biochem. 205, 321-331, 1992
 A:Title: The nucleotide and deduced amino acid structures of sheep and pig fetuin. Comm
 A:Reference number: S22394; MUID:52209519; PMID:1372866
 A:Accession: S22395
 A:Molecule type: mRNA
 A:Residues: 1-362 <BRW>
 A:Cross-references: UNIPROT:P29700; UNIPARC:UPI000012501A; EMBL:X56021, NID:q2104; PIDN:
 Arch. Biochem. Biophys. 319, 393-401, 1995
 C:Superfamily: alpha-2-HS-glycoprotein; cystatin homology
 C:Keywords: calcium binding; EF hand; glycoprotein
 F:1-15/Domain: signal sequence (fragment) #status predicted <SIG>
 F:16-362/Product: fetuin #status predicted <MAT>
 F:20-134/Domain: cystatin homology <CV1>
 F:143-249/Domain: cystatin homology <CY2>
 F:96,153,173/Binding site: carbohydate (Asn) (covalent) #status predicted

Query Match 100.0%; Score 49; DB 2; Length 362;
 Best Local Similarity 100.0%; Pred. No. 0.024;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 |||||
 Db 311 HSFSGVASVE 320

RESULT 2

A35714
 fetuin precursor - bovine
 N:Alternate names: alpha-2-HS-glycoprotein homolog; chondrocyte alkaline phosphatase ind
 C:Species: Bos primigenius taurus (cattle)
 C>Date: 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change 09-Jul-2004
 C:Accession: A35714; A26991; A29914; A05142; A61376; S10781; S65895
 R:Dziegielewska K.M.; Brown, W.M.; Casey, S.J.; Christie, D.L.; Foreman, R.C.; Hill, R.
 J. Biol. Chem. 265, 4354-4357, 1990
 A:Title: The complete cDNA and amino acid sequence of bovine fetuin. Its homology with a
 A:Reference number: A35714; MUID:90170937; PMID:1689725
 A:Accession: A35714
 A:Molecule type: mRNA
 A:Residues: 1-359 <DZI>
 A:Cross-references: UNIPROT:P12763; UNIPARC:UPI0000125015; GB:X16577; NID:g343; PIDN:CAP
 R:Christie, D.L.; Dziegielewska, K.M.; Hill, R.M.; Saunders, N.R.
 FEBS Lett. 214, 45-49, 1987
 A:Title: Fetuin: the bovine homologue of human alpha-2-HS glycoprotein.
 A:Reference number: A26991; MUID:87190952; PMID:2436943
 A:Accession: A26991
 A:Molecule type: protein
 A:Residues: 19-71,'Q','73-98,'X','100-105,'H','107-115,'FS','118,'V','120,'L','122-123;188-194
 A:Cross-references: UNIPARC:UPI0000177A81; UNIPARC:UPI0000177A82
 R:Yet, M.G.; Chin, C.C.Q.; Wold, F.
 J. Biol. Chem. 263, 111-117, 1988
 A:Title: The covalent structure of individual N-linked glycopeptides from ovomucoid and
 A:Reference number: A29914; MUID:88087074; PMID:2447075
 A:Accession: A29914
 A:Molecule type: protein
 A:Residues: 72-103;144-185,'P',187 <YET>
 A:Cross-references: UNIPARC:UPI0000177A83; UNIPARC:UPI0000177A84
 R:Alcaraz, G.; Marti, J.; Moirier, D.; Fougereau, M.
 Biochem. Biophys. Res. Commun. 99, 30-36, 1981
 A:Reference number: A05142; MUID:81207262; PMID:6165360
 A:Accession: A05142
 A:Molecule type: protein
 A:Residues: 19-56,'VK',59-62 <ALC>
 A:Cross-references: UNIPARC:UPI0000177A85
 R:Fishikawa, Y.; Wu, L.N.Y.; Valhmu, W.B.; Wuthier, R.E.

J. Cell. Physiol. 149, 222-234, 1991
 A:Title: Fetuin and alpha-2HS glycoprotein induce alkaline phosphatase in epiphyseal
 A:Reference number: A61376; MUID:92084776; PMID:1721070
 A:Accession: A61376
 A:Molecule type: protein
 A:Residues: 19-56,'VK',59-62 <ISH>
 A:Cross-references: UNIPARC:UPI0000177A85
 R:Strawich, E.; Glimcher, M.J.
 Eur. J. Biochem. 191, 47-56, 1990
 A:Title: Tooch 'enamelins' identified mainly as serum proteins. Major 'enamelin' is a
 A:Reference number: S10780; MUID:90336641; PMID:2379503
 A:Accession: S10781
 A:Molecule type: protein
 A:Residues: 19-31 <STR>
 A:Cross-references: UNIPARC:UPI00000FDE2D
 R:Kitajima, K.; Suzuki, T.; Kouchi, Z.; Inoue, S.; Inoue, Y.
 Arch. Biochem. Biophys. 319, 393-401, 1995
 A:Title: Identification and distribution of peptide:N-glycanase (PNGase) in mouse org.
 A:Reference number: S65895; MUID:95305576; PMID:7786020
 A:Accession: S65895
 A:Molecule type: protein
 A:Residues: 155-159 <KIT>
 A:Cross-references: UNIPARC:UPI0000177A86
 C:Superfamily: alpha-2-HS-glycoprotein; cystatin homology
 C:Keywords: glycoprotein; plasma
 F:1-18/Domain: signal sequence #status predicted <SIG>
 F:19-359/Product: fetuin #status experimental <MAT>
 F:23-137/Domain: cystatin homology <CV1>
 F:146-253/Domain: cystatin homology <CY2>
 F:99,156,176/Binding site: carbohydate (Asn) (covalent) #status experimental

Query Match 93.9%; Score 46; DB 2; Length 359;
 Best Local Similarity 90.0%; Pred. No. 0.1;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 |:::|
 Db 313 HTFSGVASVE 322

RESULT 3

S22394
 fetuin precursor - sheep
 C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
 C>Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 09-Jul-2004
 C:Accession: S22394; S22141
 R:Brown, W.M.; Dziegielewska, K.M.; Saunders, N.R.; Christie, D.L.; Nawratil, P.; Mue
 Eur. J. Biochem. 205, 321-331, 1992
 A:Title: The nucleotide and deduced amino acid structures of sheep and pig fetuin. Co
 A:Reference number: S22394; MUID:92209519; PMID:1372866
 A:Accession: S22394
 A:Molecule type: mRNA
 A:Residues: 1-364 <FOR>
 A:Cross-references: UNIPROT:P29701; UNIPARC:UPI000012501D; EMBL:X16578; NID:gl379; PI
 C:Superfamily: alpha-2-HS-glycoprotein; cystatin homology
 C:Keywords: calcium binding; EF hand; glycoprotein
 F:1-18/Domain: signal sequence #status predicted <SIG>
 F:19-364/Product: fetuin #status predicted <MAT>
 F:23-137/Domain: cystatin homology <CV1>
 F:146-253/Domain: cystatin homology <CY2>
 F:99,156,176/Binding site: carbohydate (Asn) (covalent) #status predicted

Query Match 93.9%; Score 46; DB 2; Length 364;
 Best Local Similarity 90.0%; Pred. No. 0.1;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 |:::|
 Db 318 HTFSGVASVE 327

RESULT 4

S21094

alpha-2-HS-glycoprotein homolog - mouse
 N;Alternate names: fetuin homolog; fetuin type trypsin inhibitor countertrypsin
 C;Species: Mus musculus (house mouse)
 C;Date: 22-Nov-1993 #sequence_revision 01-Sep-1995 #text_change 09-Jul-2004
 C;Accession: S21094; D47408; A47408; B47408; C47408
 R;Yang, F.; Chen, Z.L.; Bergeron, J.M.; Cupples, R.L.; Friedrichs, W.E.
 Biochim. Biophys. Acta 1130, 149-156, 1992
 A;Title: Human alpha (2)-HS-glycoprotein/bovine fetuin homolog in mice: identification
 A;Reference number: S21094; MUID:92223088; PMID:1373325
 A;Accession: S21094
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Residues: 1-345 <YAN>
 A;Cross-references: UNIPROT:P29699; UNIPARC:UPI00000191P; GB:S96534; NID:9248763; PIDN:
 R;Yamamoto, K.; Sinohara, H.
 J. Biol. Chem. 268, 17750-17753, 1993
 A;Title: Isolation and characterization of mouse countertrypsin, a new trypsin inhibitor
 A;Reference number: A47408; MUID:93352581; PMID:7688730
 A;Accession: D47408
 A;Status: preliminary
 A;Molecule type: protein
 A;Residues: 276-295 <YAM>
 A;Cross-references: UNIPARC:UPI0000177A87
 A;Experimental source: plasma
 A;Note: sequence extracted from NCBI backbone (NCBIP:136437)
 A;Accession: A47408
 A;Status: preliminary
 A;Molecule type: protein
 A;Residues: 19-38,'G',40-41 <YA2>
 A;Cross-references: UNIPARC:UPI0000177A88
 A;Experimental source: plasma
 A;Note: sequence extracted from NCBI backbone (NCBIP:136431)
 A;Accession: B47408
 A;Status: preliminary
 A;Molecule type: protein
 A;Residues: 81-98,'I',100-101,'I',103-105 <YA3>
 A;Cross-references: UNIPARC:UPI0000177A89
 A;Experimental source: plasma
 A;Note: sequence extracted from NCBI backbone (NCBIP:136433)
 A;Accession: C47408
 A;Status: preliminary
 A;Molecule type: protein
 A;Residues: 129-153 <YA4>
 A;Cross-references: UNIPARC:UPI0000177A8A
 A;Experimental source: plasma
 A;Note: sequence extracted from NCBI backbone (NCBIP:136435)
 C;Superfamily: alpha-2-HS-glycoprotein; cystatin homology
 C;Keywords: glycoprotein
 F;23-137/Domain: cystatin homology <CV1>
 F;146-252/Domain: cystatin homology <CV2>

Query Match 77.6%; Score 38; DB 2; Length 345;
 Best Local Similarity 80.0%; Pred. No. 4.5;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 |:|:|:|:|:|:|
 Db 302 HAFSPVASVE 311

RESULT 5
 JC5431
 countertrypsin precursor - Mongolian jird
 C;Species: Meriones unguiculatus (Mongolian jird)
 C;Date: 17-Jun-1997 #sequence_revision 12-Sep-1997 #text_change 09-Jul-2004
 C;Accession: JC5431; PC4321
 R;Goto, K.; Yoshida, K.; Suzuki, Y.; Yamamoto, K.; Sinohara, H.
 J. Biochem. 121, 619-625, 1997
 A;Title: Molecular cloning and sequencing of cDNA encoding plasma countertrypsin, a membe
 A;Reference number: JC5431; MUID:97279057; PMID:9133634
 A;Accession: JC5431
 A;Molecule type: mRNA
 A;Residues: 1-348 <GOT1>

A;Cross-references: UNIPROT:P97515; UNIPARC:UPI0000125018; DBJ:D88777; NID:gl688033
 A;Experimental source: liver
 A;Accession: PC4321
 A;Molecule type: protein
 A;Residues: 19-38 <GOT2>
 A;Cross-references: UNIPARC:UPI0000177A8B
 A;Experimental source: liver
 C;Comment: This protein belongs to the fetuin family.
 C;Superfamily: alpha-2-HS-glycoprotein; cystatin homology
 C;Keywords: calcium binding; EF hand; glycoprotein; serine proteinase inhibitor
 F;1-18/Domain: signal sequence #status predicted <SIG>
 F;19-348/Product: countertrypsin #status predicted <MAT>
 F;23-137/Domain: cystatin homology <CV1>
 F;111-122/Domain: calcium binding #status predicted <CA1>
 F;114-133/Region: inhibitory #status predicted
 F;146-252/Domain: cystatin homology <CV2>
 F;99.156/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 77.6%; Score 38; DB 2; Length 348;
 Best Local Similarity 80.0%; Pred. No. 4.6;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 |:|:|:|:|:|:|
 Db 304 HAFSPVASVE 313

RESULT 6
 A32827
 fetuin precursor - rat
 N;Alternate names: 59K bone sialoprotein; tyrosine kinase inhibitor
 C;Species: Rattus norvegicus (Norway rat)
 C;Date: 12-Oct-1989 #sequence_revision 12-Oct-1989 #text_change 09-Jul-2004
 C;Accession: A32827; S22382; I55489; A40766; A39144
 R;Aubergier, P.; Falquerho, L.; Contreires, J.O.; Pages, G.; Le Cam, G.; Rossi, B.; Le
 Cell 58, 631-640, 1989
 A;Title: Characterization of a natural inhibitor of the insulin receptor tyrosine ki
 A;Reference number: A32827; MUID:89354538; PMID:2766355
 A;Accession: A32827
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Residues: 1-375 <AUB>
 R;Rauth, G.; Poeschke, O.; Fink, E.; Eulitz, M.; Tippmer, S.; Kellerer, M.; Haering,
 Eur. J. Biochem. 204, 523-529, 1992
 A;Title: The nucleotide and partial amino acid sequences of rat fetuin. Identity wit
 A;Reference number: S22382; MUID:92174906; PMID:1371750
 A;Accession: S22382
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Residues: 18-62,'D',64-92,'E',94-287,'A',289-353,'GPVA',358,'LCP',362,'RVRYFKI' <R
 A;Cross-references: UNIPARC:UPI000012501C; EMBL:X63446; NID:956139; PIDN:CAA45042.1;
 R;Ohnishi, T.; Nakamura, O.; Ozawa, M.; Arakaki, N.; Muramatsu, T.; Daikuhara, Y.
 J. Bone Miner. Res. 8, 367-377, 1993
 A;Title: Molecular cloning and sequence analysis of cDNA for a 59 kD bone sialoprotei
 A;Reference number: I55489; MUID:93206661; PMID:7681247
 A;Accession: I55489
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: mRNA
 A;Residues: 18-62,'D',64-92,'E',94-287,'A',289-353,'GPVA',358,'LCP',362,'RVRYFKI' <R
 A;Cross-references: UNIPARC:UPI000012501C; GB:D10261; NID:9220675; PIDN:BAAO1101.1; I
 R;Ohnishi, T.; Arakaki, N.; Nakamura, O.; Hirono, S.; Daikuhara, Y.
 J. Biol. Chem. 266, 14636-14645, 1991
 A;Title: Purification, characterization, and studies on biosynthesis of a 59-kDa bone
 be the rat counterpart of human alpha-2-HS glycoprotein and is synthesized by both he
 A;Reference number: A40766; MUID:91317830; PMID:1860865
 A;Accession: A40766
 A;Molecule type: protein
 A;Residues: 36,'XE',39-44,'XQ',47-48,'XNN',52,'X',69-82;183-192,'X',194-198;249-252,'
 A;Cross-references: UNIPARC:UPI0000177A7C; UNIPARC:UPI0000177A7D; UNIPARC:UPI0000177
 C;Superfamily: alpha-2-HS-glycoprotein; cystatin homology
 F;40-154/Domain: cystatin homology <CV1>
 F;163-269/Domain: cystatin homology <CV2>

Query Match 77.6%; Score 38; DB 2; Length 375;
Best Local Similarity 80.0%; Pred. No. 4.9; Mismatches 1; Indels 0; Gaps 0;
Matches 8; Conservative

QY 1 HSPSGVASVE 10
|:|:|:|:|:|
DB 323 HAFSPVASVE 332

RESULT 7

G83184
adenylate kinase PA3686 [imported] - Pseudomonas aeruginosa (strain PA01)
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
C;Accession: G83184
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warren, P.; Hickey, M.J.; B
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
-i Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho
A;Reference number: A82950; MUID:20437337; PMID:10984043
A;Accession: G83184
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-215 <SPO>
A;Cross-references: UNIPROT:Q9HXV4; UNIPARC:UPI000012DBDF; GB:AE004788; GB:AE004091; NID
A;Experimental source: strain PA01
C;Genetics:
A;Gene: adk; PA3686
C;Superfamily: adenylate kinase

Query Match 73.5%; Score 36; DB 2; Length 215;
Best Local Similarity 70.0%; Pred. No. 7.2; Mismatches 1; Indels 0; Gaps 0;
Matches 7; Conservative

QY 1 HSPSGVASVE 10
|:|:|:|:|:|
DB 195 HSIAGVGSVE 204

RESULT 8

T18200
fatty-acid synthase homolog p260 - silkworm
C;Species: Bombyx mori (silkworm)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T18200
R;Ueno, K.
submitted to the EMBL Data Library, August 1996
A;Description: p260/270 expressed in embryonic abdominal leg cells of Bombyx mori can tr
A;Reference number: Z18815
A;Accession: T18200
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-2342 <JEN>
A;Cross-references: UNIPROT:O01677; UNIPARC:UPI00000827E4; EMBL:U67866; NID:G2058457; P
C;Superfamily: rat fatty-acid synthase; 3-oxoacyl-[acyl-carrier-protein] synthase I hom
ydrolase homology; short-chain alcohol dehydrogenase homology; [acyl-carrier-protein] S-
C;Keywords: carrier protein

Query Match 73.5%; Score 36; DB 2; Length 2342;
Best Local Similarity 60.0%; Pred. No. 91; Mismatches 3; Indels 0; Gaps 0;
Matches 6; Conservative

QY 1 HSPSGVASVE 10
|:|:|:|:|:|
DB 583 HSPVGIAAVQ 592

RESULT 9

T37964
probable ubiquitin ligase - fission yeast (Schizosaccharomyces pombe)
C;Species: Schizosaccharomyces pombe

C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T37964
R;Devlin, K.; Churcher, C.M.; Wood, V.; Barrell, B.G.; Rajandream, M.A.
submitted to the EMBL Data Library, September 1997
A;Reference number: Z21757
A;Accession: T37964
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-3227 <DEV>
A;Cross-references: UNIPROT:O13834; UNIPARC:UPI0000069F11; EMBL:Z99531; PIDN:CAB16714
A;Experimental source: strain 972h-; cosmid c19D5
C;Genetics:
A;Gene: SPDB:SPAC19D5.04
A;Map position: 1

Query Match 71.4%; Score 35; DB 2; Length 3227;
Best Local Similarity 75.0%; Pred. No. 2.1e+02;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVAS 8
|:|:|:|:|:|
DB 2504 HDPFGIAS 2511

RESULT 10

F72628
hypothetical protein APE1486 - Aeropyrum pernix (strain K1)
C;Species: Aeropyrum pernix
C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 09-Jul-2004
C;Accession: F72628
R;Kawarabayashi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-no, K.; Ta
awa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.
DNA Res. 6, 83-101, 1999
A;Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aero
A;Reference number: A72450; MUID:99310339; PMID:10382966
A;Accession: F72628
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-197 <KAW>
A;Cross-references: UNIPROT:Q9YBW4; UNIPARC:UPI000005DF81; DDBJ:AP000061; NID:G510482
A;Experimental source: strain K1
C;Genetics:
A;Gene: APE1486

Query Match 69.4%; Score 34; DB 2; Length 197;
Best Local Similarity 75.0%; Pred. No. 17; Mismatches 2; Indels 0; Gaps 0;
Matches 6; Conservative

QY 2 SPSGVASV 9
|:|:|:|:|:|
DB 125 SPSGIASI 132

RESULT 11

S21864
probable cysteine proteinase (EC 3.4.22.-) - Euroglyphus maynei
N;Alternate names: allergen Eur m I
C;Species: Euroglyphus maynei
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
C;Accession: S21864
R;Kent, N.A.; Hill, M.; Keen, J.N.; Holland, P.W.H.; Hart, B.
submitted to the EMBL Data Library, June 1991
A;Reference number: S21864
A;Accession: S21864
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-211 <KEN>
A;Cross-references: UNIPROT:P25780; UNIPARC:UPI000016BEC4; EMBL:X60073
C;Genetics:

A;Introns: 100/3; 155/2
C;Superfamily: papain
C;Keywords: cysteine proteinase; hydrolase

Query Match 69.4%; Score 34; DB 2; Length 211;
 Best Local Similarity 77.8%; Pred. No. 18;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPSGVSASVE 10
 :|||||
 DB 37 AFSGVASTE 45

RESULT 12

T21322 phosphoprotein phosphatase (EC 3.1.3.16) 1 F25B3.4 [similarity] - Caenorhabditis elegans

C:Species: Caenorhabditis elegans
 C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 05-Oct-2004
 C:Accession: T21322

R:Gardner, A.

submitted to the EMBL Data Library, April 1996

A:Reference number: Z19406

A:Accession: T21322

A:Status: translated from GB/EMBL/DBBJ

A:Molecule type: DNA

A:Residues: 1-291 <WIL>

A:Cross-references: UNIPROT:Q27496; UNIPARC:UPI000007D589; EMBL:Z70752; PIDN:CAA94756.1;

A:Experimental source: clone F25B3

C:Genetics:

A:Gene: CESP:F25B3.4

A:Map position: 5

A:Introns: 20/2; 157/3; 273/3

C:Superfamily: serine/threonine protein phosphatase; phosphoesterase core homology; phospho-
 C:Keywords: iron; metalloprotein; phosphoric monoester hydrolase; serine/threonine-speci
 F:7-268/Domain: phosphoprotein phosphatase homology <PPP>

F:35-103/Domain: phosphoesterase core homology <PEC>

F:41-43-69/Binding site: iron (Asp, His, Asp) #status predicted

F:69-101-151-227/Binding site: zinc (Asp, Asn, His, His) #status predicted

F:72-102-251/Active site: Asp, His, Tyr #status predicted

F:73-200/Binding site: substrate phosphate (Arg) #status predicted

Query Match 69.4%; Score 34; DB 1; Length 291;

Best Local Similarity 77.8%; Pred. No. 26;

Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASV 9
 |||||
 DB 128 HSFQGVFSV 136

RESULT 13

B64688

glyceraldehyde-3-phosphate dehydrogenase (phosphorylating) (EC 1.2.1.12) - Helicobacter

C:Species: Helicobacter pylori

C:Date: 09-Aug-1997 #sequence_revision 09-Aug-1997 #text_change 09-Jul-2004

C:Accession: B64688

R:Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R.D.

Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKen

son, J.D.; Kelley, J.M.; Corton, M.D.; Weidman, J.M.; Fujii, C.; Bowman, C.; Watthey, L.

Nature 388, 539-547, 1997

A:Authors: Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; Smith, H.O.; Fraser, C.

A:Title: The complete genome sequence of the gastric pathogen Helicobacter pylori.

A:Reference number: A64520; MUID:97394467; PMID:9252185

A:Accession: B64688

A:Status: preliminary; nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-330 <TOM>

A:Cross-references: UNIPROT:O25902; UNIPARC:UPI00000D3154; GB:AE000635; GB:AE000511; NID

C:Superfamily: glyceraldehyde-3-phosphate dehydrogenase

C:Keywords: glycolysis; NAD; oxidoreductase

F:149-176/Active site: Cys, His #status predicted

Query Match 69.4%; Score 34; DB 2; Length 330;

Best Local Similarity 50.0%; Pred. No. 30;

Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

DB 264 HAFKGVWSID 273
 :|||::

RESULT 14

C71830

glyceraldehyde 3-phosphate dehydrogenase - Helicobacter pylori (strain J99)

C:Species: Helicobacter pylori

A:Variety: strain J99

C:Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004

C:Accession: C71830

R:Aim, R.A.; Gibson, L.S.L.; Moir, D.T.; King, B.L.; Brown, E.D.; Doig, P.C.; Smith, D.

Ives, C.; Ling, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.E.; Vovis, G.

Nature 397, 176-180, 1999

A:Title: Genomic sequence comparison of two unrelated isolates of the human gastric

A:Reference number: A71800; MUID:99120557; PMID:9923682

A:Accession: C71830

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-330 <ARN>

A:Cross-references: UNIPROT:Q9ZJP0; UNIPARC:UPI00000D3719; GB:AE001549; GB:AE001439;

A:Experimental source: strain J99

C:Genetics:

A:Gene: gap_2

C:Superfamily: glyceraldehyde-3-phosphate dehydrogenase

Query Match 69.4%; Score 34; DB 2; Length 330;

Best Local Similarity 50.0%; Pred. No. 30;

Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

:|||::

DB 264 HAFKGVWSID 273

RESULT 15

T19652

hypothetical protein C32H11.1 - Caenorhabditis elegans

C:Species: Caenorhabditis elegans

C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004

C:Accession: T19652; T23450

R:Barlow, K.

submitted to the EMBL Data Library, November 1996

A:Reference number: Z19157

A:Accession: T19652

A:Status: preliminary; translated from GB/EMBL/DBBJ

A:Molecule type: DNA

A:Residues: 1-462 <WIL>

A:Cross-references: UNIPROT:Q9XTE4; UNIPARC:UPI000007EF8B; EMBL:Z82260; PIDN:CAB0514;

A:Experimental source: clone C32H11

R:Percy, C.

submitted to the EMBL Data Library, May 1996

A:Reference number: Z19742

A:Accession: T23450

A:Status: preliminary; translated from GB/EMBL/DBBJ

A:Molecule type: DNA

A:Residues: 1-462 <WIT>

A:Cross-references: UNIPARC:UPI000007EF8B; EMBL:Z73104; PIDN:CAA97437.1; GSPDB:GN000;

A:Experimental source: clone K08D8

C:Genetics:

A:Gene: CESP:C32H11.1

A:Map position: 4

A:Introns: 96/2; 134/1; 184/1; 239/1; 290/3; 311/2; 348/1; 419/2

Query Match 69.4%; Score 34; DB 2; Length 462;

Best Local Similarity 87.5%; Pred. No. 42;

Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVAS 8

:|||

DB 148 HSISGVAS 155

RESULT 16

T04340
 beta-galactosidase (EC 3.2.1.23) II precursor - tomato
 C;Species: Lycopersicon esculentum (tomato)
 C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 09-Jul-2004
 C;Accession: T04340
 R;Smith, D.L.; Starrett, D.A.; Gross, K.C.
 Plant Physiol. 117, 417-423, 1998
 A;Title: A gene coding for tomato fruit beta-galactosidase II is expressed during fruit
 A;Reference number: Z15296; MUID:98289087; PMID:9625694
 A;Accession: T04340
 A;Status: translated from GB/EMBL/DBJ
 A;Molecule type: mRNA
 A;Residues: 1-724 <SMI>
 A;Cross-references: UNIPROT:O81100; UNIPARC:UPI00000AC774; EMBL:AF020390; NID:g3299895;
 A;Experimental source: strain Rutgers; tissue-type tomato fruit
 C;Genetics:
 A;Gene: Bgal4
 C;Superfamily: beta-galactosidase bga
 C;Keywords: glycosidase; hydrolase
 F;1-23/Domain: signal sequence #status predicted <SIG>
 F;24-724/Product: beta-galactosidase II #status predicted <MAT>

Query Match 69.4%; Score 34; DB 2; Length 724;
 Best Local Similarity 70.0%; Pred. No. 68;
 Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
 |||||:
 Db 594 HSLSGSSVE 603

RESULT 17

AB2457
 two-component hybrid sensor and regulator all5210 [imported] - Nostoc sp. (strain PCC 7120)
 C;Species: Nostoc sp. PCC 7120
 A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
 C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
 C;Accession: AB2457
 R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguchi, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, S.
 DNA Res. 8, 205-213, 2001
 A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium Anabaena
 A;Reference number: AB1807; MUID:21595285; PMID:11759840
 A;Accession: AB2457
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-1558 <KUR>
 A;Cross-references: UNIPROT:Q8YLT6; UNIPARC:UPI000000CEDCF; GB:BA0000019; PIDN:BAB76909.1;
 A;Experimental source: strain PCC 7120
 C;Genetics:
 A;Gene: all5210

Query Match 69.4%; Score 34; DB 2; Length 1558;
 Best Local Similarity 60.0%; Pred. No. 1.5e+02;
 Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
 |:: |||||
 Db 153 HNYRGVASAE 162

RESULT 18

S03380
 major fecal allergen Der p I - house-dust mite (Dermatophagoides pteronyssinus) (fragment)
 N;Alternate names: allergen Der p1
 C;Species: Dermatophagoides pteronyssinus
 C;Date: 05-Mar-1995 #sequence_revision 01-Sep-1995 #text_change 09-Jul-2004
 C;Accession: S03380
 R;Simpson, R.J.; Nice, E.C.; Moritz, R.L.; Stewart, G.A.
 Protein Seq. Data Anal. 2, 17-21, 1989
 A;Title: Structural studies on the allergen Der p1 from the house dust mite Dermatophagoides pteronyssinus
 A;Reference number: A31657; MUID:89098855; PMID:2911558

A;Accession: S03380

A;Status: preliminary

A;Molecule type: protein

A;Residues: 1-28129-43;44-60;61-76;77-94 <STM>

A;Cross-references: UNIPROT:Q7M431; UNIPARC:UPI000002F520; UNIPARC:UPI000017SD1D; UNI

C;Superfamily: papain

Query Match 67.3%; Score 33; DB 2; Length 94;
 Best Local Similarity 66.7%; Pred. No. 13;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPSGVASVE 10
 :|||||:
 Db 38 AFSGVAGIE 46

RESULT 19

T15911
 hypothetical protein E04F6.8 - Caenorhabditis elegans
 C;Species: Caenorhabditis elegans
 C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 09-Jul-2004
 C;Accession: T15911
 R;Pauley, A.
 submitted to the EMBL Data Library, June 1995
 A;Description: The sequence of C. elegans cosmid E04F6.
 A;Reference number: Z18427
 A;Accession: T15911
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 1-128 <PAU>
 A;Cross-references: UNIPROT:Q19063; UNIPARC:UPI0000077294; EMBL:U28943; NID:g861333;
 A;Experimental source: strain Bristol N2
 C;Genetics:
 A;Gene: CESP:E04F6.8
 A;Introns: 29/3; 104/3

Query Match 67.3%; Score 33; DB 2; Length 128;
 Best Local Similarity 75.0%; Pred. No. 17;
 Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVAS 8
 | |||||:
 Db 113 HGFSGVAA 120

RESULT 20

AI2669
 conserved hypothetical protein Atu0759 [imported] - Agrobacterium tumefaciens (strain C;Species: Agrobacterium tumefaciens
 C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
 C;Accession: AI2669
 R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woc
 erage, G.; Gillet, W.; Grant, C.; Guenther, D.; Kutayavin, T.; Levy, R.; Li, M.; MCCl
 erage, P.; Romero, P.; Zhang, S.
 Science 294, 2317-2323, 2001
 A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kar
 ster, E.W.
 A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.
 A;Reference number: AB2577; MUID:21608550; PMID:11743193
 A;Accession: AI2669
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-149 <KUR>

A;Cross-references: UNIPROT:Q8UHC3; UNIPARC:UPI00000D1901; GB:AE008688; PIDN:AAL41775
 A;Experimental source: strain C58 (dupont)
 C;Genetics:
 A;Gene: Atu0759
 A;Map position: circular chromosome

Query Match 67.3%; Score 33; DB 2; Length 149;
 Best Local Similarity 75.0%; Pred. No. 20;
 Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVAS 8
 |||||
 Db 121 HSFEGVAA 128

RESULT 21

G97451
 hypothetical protein AGR_C_1378 [imported] - Agrobacterium tumefaciens (strain C58, Cere
 C;Species: Agrobacterium tumefaciens
 C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
 C;Accession: G97451
 R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman,
 A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.;
 Science 294, 2323-2328, 2001
 A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tum
 A;Reference number: A97359; MUID:21608551; PMID:11743194
 A;Accession: G97451
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-149 <KUR>
 A;Cross-references: UNIPROT:Q8UHC3; UNIPARC:UPI00000D1901; GB:AE007869; PIDN:AAK86568.1;
 C;Genetics:
 A;Gene: AGR_C_1378
 A;Map position: circular chromosome

Query Match 67.3%; Score 33; DB 2; Length 149;
 Best Local Similarity 75.0%; Pred. No. 20;
 Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVAS 8
 |||||
 Db 121 HSFEGVAA 128

RESULT 22

S17702
 hypothetical protein 1 - Azospirillum brasilense
 C;Species: Azospirillum brasilense
 C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
 C;Accession: S17702
 R;Zimmer, W.; Aparicio, C.; Eimerich, C.
 Mol. Gen. Genet. 229, 41-51, 1991
 A;Title: Relationship between tryptophan biosynthesis and indole-3-acetic acid productio
 A;Reference number: S17702; MUID:91375449; PMID:1896020
 A;Accession: S17702
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-150 <ZIM>
 A;Cross-references: UNIPROT:P26943; UNIPARC:UPI000013C156; EMBL:X57853; NID:g48840; PIDN

Query Match 67.3%; Score 33; DB 2; Length 150;
 Best Local Similarity 60.0%; Pred. No. 21;
 Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 |||||
 Db 51 HAFAGVTIVE 60

RESULT 23

D83190
 UDP-N-acetylglucosamine acyltransferase PA3644 [imported] - Pseudomonas aeruginosa (stra
 C;Species: Pseudomonas aeruginosa
 C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
 C;Accession: D83190
 R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrenner, P.; Hickey, M.J.; Br
 adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
 .; Lory, S.; Olson, M.V.
 Nature 406, 959-964, 2000
 A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho
 A;Reference number: A82950; MUID:20437337; PMID:10984043
 A;Accession: D83190
 A;Status: preliminary

A;Molecule type: DNA
 A;Residues: 1-258 <STO>
 A;Cross-references: UNIPROT:Q9X6P4; UNIPARC:UPI00001288B4; GB:AE004784; GB:AE004091
 A;Experimental source: strain PA01
 C;Genetics:
 A;Gene: lpxA; PA3644
 C;Superfamily: acyl-(acyl-carrier-protein):UDP-N-acetylglucosamine O-acyltransferase

Query Match 67.3%; Score 33; DB 2; Length 258;
 Best Local Similarity 75.0%; Pred. No. 37;
 Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVAS 8
 |||||
 Db 164 HSFSGMGS 171

RESULT 24

G90890
 hypothetical protein ECs2095 [imported] - Escherichia coli (strain O157:H7, substra
 C;Species: Escherichia coli
 C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
 C;Accession: G90890
 R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han,
 Gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
 DNA Res. 8, 11-22, 2001
 A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and
 A;Reference number: A99629; MUID:21156231; PMID:11258796
 A;Accession: G90890
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-460 <HAY>
 A;Cross-references: UNIPROT:P77793; UNIPARC:UPI000013A946; GB:BA000007; PIDN:BA83551
 A;Experimental source: strain O157:H7, substrain RMD 0509952
 C;Genetics:
 A;Gene: ECs2095

Query Match 67.3%; Score 33; DB 2; Length 460;
 Best Local Similarity 66.7%; Pred. No. 68;
 Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
 |||||
 Db 227 HYFSGIAEV 235

RESULT 25

B85727
 hypothetical protein Z2219 [imported] - Escherichia coli (strain O157:H7, substrain
 C;Species: Escherichia coli
 C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
 C;Accession: B85727
 R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Ma
 iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apod
 Nature 409, 529-533, 2001
 A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
 A;Reference number: A85480; MUID:21074935; PMID:11206551
 A;Accession: B85727
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-460 <STO>

A;Cross-references: UNIPROT:P77793; UNIPARC:UPI000013A946; GB:AE005174; NID:g1251518
 A;Experimental source: strain O157:H7, substrain EDL933
 C;Genetics:
 A;Gene: Z2219

Query Match 67.3%; Score 33; DB 2; Length 460;
 Best Local Similarity 66.7%; Pred. No. 68;
 Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
 |||||
 Db 227 HYFSGIAEV 235

RESULT 26

E64902

hypothetical protein bl490 - Escherichia coli (strain K-12)

C:Species: Escherichia coli

C>Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004

C:Accession: E64902

R:Blattner, F.R.; Mau, B.; Shao, Y.

A.; Rose, D.J.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; Co

Science 277, 1453-1462, 1997

A>Title: The complete genome sequence of Escherichia coli K-12.

A:Reference number: A64720; MUID:97426617; PMID:9278503

A:Accession: E64902

A>Status: nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-460 <BLAT>

A:Cross-references: UNIPROT:P77793; UNIPARC:UPI000013A946; GB:AE000246; GB:U00096; NID:9

A:Experimental source: strain K-12, substrain MGL655

Query Match 67.3%; Score 33; DB 2; Length 460;

Best Local Similarity 66.7%; Pred. No. 68;

Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9

|||||

Db 227 HFSGIAEV 235

RESULT 27

S19729

xylan 1,4-beta-xylosidase (EC 3.2.1.37) - Bacillus pumilus

C:Species: Bacillus pumilus

C>Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004

C:Accession: S19729

R; Xu, W.Z.; Shima, Y.; Negoro, S.; Urabe, I.

Eur. J. Biochem. 202, 1197-1203, 1991

A>Title: Sequence and properties of beta-xylosidase from Bacillus pumilus IPO. Contradic

A:Reference number: S19729; MUID:92111496; PMID:1765080

A:Accession: S19729

A:Molecule type: DNA

A:Residues: 1-535 <XNW>

A:Cross-references: UNIPROT:P07129; UNIPARC:UPI000013908B; EMBL:X05793; NID:G48663; PIDN

A:Experimental source: strain IPO

C:Genetics:

A:Gene: xynB

A:Start codon: TTG

C:Function:

A:Description: hydrolysis of 1,4-beta-D-xylan

A:Pathway: xylan degradation

C:Superfamily: Xylan 1,4-beta-xylosidase (EC 3.2.1.37)

C:Keywords: Glycosidase; hydrolase; polysaccharide degradation

Query Match

Best Local Similarity 67.3%; Score 33; DB 2; Length 535;

Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10

|||||

Db 152 HSFAGIALQE 161

RESULT 28

C96654

hypothetical protein F16P17.10 [imported] - Arabidopsis thaliana

C:Species: Arabidopsis thaliana (mouse-ear cress)

C>Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Dec-2004

C:Accession: C96654

R:Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso,

Chen, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;

ansen, N.F.; Hughes, B.; Huizar, L.

Nature 408, 816-820, 2000

A:Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.

C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marzia

Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.

A:Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallo

ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.

A>Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A:Reference number: A86141; MUID:21016719; PMID:11130712

A:Accession: C96654

A>Status: preliminary

A:Molecule type: DNA

A:Residues: 1-890 <STO>

A:Cross-references: UNIPROT:Q9LQ11; UNIPARC:UPI00000483E9; GB:AE005173; NID:G8493583;

C:Genetics:

A:Gene: F16P17.10

A:Map position: 1

C:Superfamily: Receptor-like protein kinase

Query Match 67.3%; Score 33; DB 2; Length 890;

Best Local Similarity 70.0%; Pred. No. 1.4e+02;

Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10

|||||

Db 251 NSPDGVASFE 260

RESULT 29

G71286

Probable pyruvate, phosphate dikinase - syphilis spirochete

C:Species: Treponema pallidum subsp. pallidum (syphilis spirochete)

C>Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change 09-Jul-2004

C:Accession: G71286

R; Fraser, C.M.; Norris, S.J.; Weinstock, G.M.; White, O.; Sutton, G.G.; Dodson, R.; G

rson, J.; Khalak, H.; Richardson, D.; Howell, J.K.; Chidambaram, M.; Uterback, T.; M

sney, L.; Weidman, J.; Smith, H.O.; Venter, J.C.

Science 281, 375-388, 1998

A>Title: Complete genome sequence of Treponema pallidum, the syphilis spirochete.

A:Reference number: A71250; MUID:98332770; PMID:9665876

A:Accession: G71286

A>Status: preliminary; nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-901 <COL>

A:Cross-references: UNIPROT:O83728; UNIPARC:UPI0000131DB6; GB:AE001246; GB:AE000520;

A:Experimental source: strain Nichols

C:Genetics:

A:Gene: TP0746

C:Superfamily: pyruvate, phosphate dikinase

Query Match 67.3%; Score 33; DB 2; Length 901;

Best Local Similarity 40.0%; Pred. No. 1.4e+02;

Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10

|||||

Db 720 HAYQIGSIE 729

RESULT 30

T52523

hypothetical protein B2J23.190 [imported] - Neurospora crassa

C:Species: Neurospora crassa

C>Date: 20-Oct-2000 #sequence_revision 20-Oct-2000 #text_change 09-Jul-2004

C:Accession: T52523

R; Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.; Nyakati

submitted to the Protein Sequence Database, September 2000

A:Reference number: Z26053

A:Accession: T52523

A:Molecule type: DNA

A:Residues: 1-1209 <SCH>

A:Cross-references: UNIPROT:Q9HFT3; UNIPARC:UPI000017B49A; EMBL:AL442164; GSPDB:GN00;

A:Experimental source: BAC clone B2J23; strain OR74A

C:Genetics:

A:Gene: NCSP:B2J23.190

A:Map position: 6
A:Introns: 206/2; 752/1; 896/3

Query Match 67.3%; Score 33; DB 2; Length 1209;
Best Local Similarity 60.0%; Pred. No. 1.9e+02;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
|||:|
Db 748 HKFSGICSH 757

RESULT 31

B69406

probable 3-isopropylmalate dehydratase - Archaeoglobus fulgidus

N:Alternate names: conserved hypothetical protein AF1251

C:Species: Archaeoglobus fulgidus

C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004

C:Accession: B69406

R:Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dodson

; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F.

Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L.

Nature 390, 364-370, 1997

A:Authors: Uterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, S.

Smith, H.O.; Woese, C.R.; Venter, J.C.

A:Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archaeo

A:Reference number: A69250; MUID:198049343; PMID:9389475

A:Accession: B69406

A:Status: preliminary; nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-239 <KLE>

A:Cross-references: UNIPROT:Q29017; UNIPARC:UPI0000056DD6; GB:AE001018; GB:AE000782; NID

C:Superfamily: 3-isopropylmalate dehydratase leud chain

Query Match 65.3%; Score 32; DB 1; Length 239;
Best Local Similarity 60.0%; Pred. No. 55;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
:|:|:|:|
Db 113 YSFAGVATFE 122

RESULT 32

G86710

conserved hypothetical protein ygiI [imported] - Lactococcus lactis subsp. lactis (strain

C:Species: Lactococcus lactis subsp. lactis

C>Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 09-Jul-2004

C:Accession: G86710

R:Bototin, A.; Wincker, P.; Manger, S.; Jaillon, O.; Malarne, K.; Weissenbach, J.; Ehrlich

Genome Res. 11, 731-753, 2001

A:Title: The complete genome sequence of the lactic acid bacterium Lactococcus lactis se

A:Reference number: A86625; MUID:21235186; PMID:11337471

A:Accession: G86710

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-257 <STO>

A:Cross-references: UNIPROT:Q9CHP1; UNIPARC:UPI0000068A8; GB:AE005176; PID:gl2723596; F

A:Experimental source: strain IL1403

C:Genetics:

A:Gene: ygiI

C:Superfamily: Mg-dependent DNase, TatD type

Query Match 65.3%; Score 32; DB 2; Length 257;
Best Local Similarity 85.7%; Pred. No. 59;
Matches 6; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPFSGVA 7
|:|:|:|
Db 154 HSPFSGTA 160

RESULT 33

T45849

peroxidase ATP21a - Arabidopsis thaliana

N:Alternate names: protein F3A4.40

C:Species: Arabidopsis thaliana (mouse-ear cress)

C>Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #text_change 09-Jul-2004

C:Accession: T45849

R:Bargues, M.; Collado, M.C.; Navarro, P.; Terol, J.; Perez-Alonso, M.; Maves, H.W.;

submitted to the Protein Sequence Database, December 1999

A:Reference number: Z23007

A:Accession: T45849

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-329 <BAR>

A:Cross-references: UNIPROT:Q96510; UNIPARC:UPI0000048820; EMBL:AL132978

A:Experimental source: cultivar Columbia; BAC clone F3A4

C:Genetics:

A:Map position: 3

A:Introns: 72/3; 139/3; 195/1

A>Note: F3A4.40

C:Superfamily: peroxidase

Query Match 65.3%; Score 32; DB 2; Length 329;
Best Local Similarity 50.0%; Pred. No. 77;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
|:|:|:|
Db 212 HKFENGINSVD 221

RESULT 34

T31121

hypothetical protein 3 - Sphingomonas aromaticivorans plasmid pNL1

C:Species: Sphingomonas aromaticivorans

C>Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 09-Jul-2004

C:Accession: T31121

R:Romine, M.F.; Stillwell, L.C.; Wong, K.K.; Thurston, S.J.; Sisk, E.C.; Sensen, C.W

submitted to the EMBL Data Library, July 1998

A:Description: Complete sequence of a 184 kb catabolic plasmid from Sphingomonas aro

A:Reference number: Z20992

A:Accession: T31121

A:Status: preliminary; translated from GB/EMBL/DBDJ

A:Molecule type: DNA

A:Residues: 1-394 <ROM>

A:Cross-references: UNIPROT:O85830; UNIPARC:UPI000005C952; EMBL:AF079317; NID:G33782

C:Genetics:

A:Genome: plasmid pNL1

A>Note: ori003

C:Superfamily: bicyclomycin resistance protein

Query Match 65.3%; Score 32; DB 2; Length 394;
Best Local Similarity 77.8%; Pred. No. 94;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPFSGVASV 9
:|:|:|:|
Db 362 YSPFGVASV 370

RESULT 35

T23013

hypothetical protein F59F5.1 - Caenorhabditis elegans

C:Species: Caenorhabditis elegans

C>Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004

C:Accession: T23013

R:Lennard, N.

submitted to the EMBL Data Library, August 1995

A:Reference number: Z19653

A:Accession: T23013

A:Status: preliminary; translated from GB/EMBL/DBDJ

A:Molecule type: DNA

A:Residues: 1-417 <WIL>

A:Cross-references: UNIPROT:Q21044; UNIPARC:UPI0000077F2A; EMBL:Z50794; PIDN:CAA9065;

A;Experimental source: clone F59F5

C;Genetics:

A;Gene: CESP:F59F5.1

A;Map position: X

A;Introns: 2/3; 38/1; 85/1; 135/3; 178/3; 217/2; 244/3; 286/1

Query Match 65.3%; Score 32; DB 2; Length 417;
Best Local Similarity 75.0%; Pred. No. 99;

Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVAS 8

Db 344 HNFSGFAS 351

RESULT 36

D82614 glycinamide ribonucleotide synthetase XF1976 [imported] - Xylella fastidiosa (strain 9a5c)

C;Species: Xylella fastidiosa

C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004

C;Accession: D82614

R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequencing

Nature 406, 151-157, 2000

A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.

A;Reference number: A82515; MUID:20365717; PMID:10910347

A;Note: for a complete list of authors see reference number A59328 below

A;Accession: D82614

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-437 <SM>

A;Cross-references: UNIPROT:Q9PC09; UNIPARC:UPI0000132A4C; GB:AE004017; GB:AE003849; NID

A;Experimental source: strain 9a5c

R;Simpson, A.R.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; A

as-Neto, E.; Docena, C.; El-Dorri, H.; Facincani, A.P.; Ferreira, A.J.S.

submitted to GenBank, June 2000

A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohm

J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laig

chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, E

A;Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.;

, F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A

Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasak

A;Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silveir

M.; Tshako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Z

A;Reference number: A59328

A;Contents: annotation

C;Genetics:

A;Gene: XF1976

C;Superfamily: phosphoribosylamine-glycine ligase; phosphoribosylamine-glycine ligase ho

Query Match 65.3%; Score 32; DB 2; Length 437;

Best Local Similarity 55.6%; Pred. No. 1e+02;

Matches 5; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9

Db 399 HAYAGVASL 407

RESULT 37

T42670

hypothetical protein DKFZp434C0917.1 - human (fragment)

C;Species: Homo sapiens (man)

C;Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 09-Jul-2004

C;Accession: T42670

R;Blöcker, H.; Boecher, M.; Brandt, P.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S.

submitted to the Protein Sequence Database, November 1999

A;Reference number: Z22230

A;Accession: T42670

A;Status: preliminary

A;Molecule type: mRNA

A;Residues: 1-455 <AAA>

A;Cross-references: UNIPROT:Q9UIW8; UNIPARC:UPI000006DB0A; EMBL:AL133070

A;Experimental source: adult testis; clone DKFZp434C0917

C;Genetics:

A;Note: DKFZp434C0917.1

Query Match 65.3%; Score 32; DB 2; Length 455;

Best Local Similarity 60.0%; Pred. No. 1.1e+02;

Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10

Db 117 HSMSTIASVK 126

RESULT 38

E82444

NAD(P) transhydrogenase, beta chain VCA0564 [imported] - Vibrio cholerae (strain N169

C;Species: Vibrio cholerae

C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 31-Dec-2004

C;Accession: E82444

R;Heidelber, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.

chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers

l, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.

Nature 406, 477-483, 2000

A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.

A;Reference number: A82035; MUID:20406833; PMID:10952301

A;Accession: E82444

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-458 <HEI>

A;Cross-references: UNIPROT:Q9KM25; UNIPARC:UPI00000C3583; GB:AE004387; GB:AE003853;

A;Experimental source: serogroup O1; strain N16961; biotype El Tor

C;Genetics:

A;Gene: VCA0564

A;Map position: 2

C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P) + transhydrogenase (B-spe

Query Match 65.3%; Score 32; DB 2; Length 458;

Best Local Similarity 66.7%; Pred. No. 1.1e+02;

Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9

Db 91 HSFVGMNAV 99

RESULT 39

A81885

probable NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) beta chain NM1175 [import

C;Species: Neisseria meningitidis

C;Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 31-Dec-2004

C;Accession: A81885

R;Parkhill, J.; Achtman, M.; James, K.D.; Bentley, S.D.; Churcher, C.; Klee, S.R.; Mc

; Holroyd, S.; Jørgels, K.; Leather, S.; Moule, S.; Mungall, K.; Quail, M.A.; Rajandre

Nature 404, 502-506, 2000

A;Title: Complete DNA sequence of a serogroup A strain of Neisseria meningitidis Z2491

A;Reference number: A81775; MUID:20222556; PMID:10761919

A;Accession: A81885

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-461 <PAR>

A;Cross-references: UNIPROT:Q9JUR5; UNIPARC:UPI00000C4B2F; GB:AL162755; GB:AL157959;

A;Experimental source: serogroup A, strain Z2491

C;Genetics:

A;Gene: pntB; NM1175

C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P) + transhydrogenase (B-spe

C;Keywords: oxidoreductase

F;21-459/Domain: NAD(P) + transhydrogenase (B-specific) beta chain homology <TB>

Query Match 65.3%; Score 32; DB 2; Length 461;

Best Local Similarity 66.7%; Pred. No. 1.1e+02;

Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9

Db 91 HSFVGLAAV 99
||| |::|

RESULT 40

C81137
NAD(P) transhydrogenase, beta chain NMB0978 [imported] - Neisseria meningitidis (strain C)
C:Species: Neisseria meningitidis
C:Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 31-Dec-2004
C:Accession: C81137
R:Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, J.A.; Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.; Iri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Maignani, V.; Pizzi, M. Science 287, 1809-1815, 2000
A:Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Vignoli, P. J. Biol. Chem. 275, 11111-11117, 2000
A:Title: Complete genome sequence of *Neisseria meningitidis* serogroup B strain MC58.
A:Reference number: A81000; MUID:20175755; PMID:10710307
A:Accession: C81137
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-461 <TET>
A:Cross-references: UNIPROT:Q9JZM2; UNIPARC:UPI00000C45F8; GB:AE002448; GB:AE002098; NID:21-459/Domain: NAD(P)+ transhydrogenase (B-specific) beta chain homology <TBB>
A:Experimental source: serogroup B, strain MC58
C:Genetics:
A:Gene: NMB0978
C:Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-specific)
F:21-459/Domain: NAD(P)+ transhydrogenase (B-specific) beta chain homology <TBB>

Query Match 65.3%; Score 32; DB 2; Length 461;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
||| |::|
Db 91 HSFVGLAAV 99

RESULT 41

DRECBX
NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) beta chain - Escherichia coli (strain N)
A:Alternate names: pyridine nucleotide transhydrogenase beta chain
C:Species: Escherichia coli
C:Date: 30-Jun-1988 #sequence_revision 03-Nov-1995 #text_change 31-Dec-2004
C:Accession: S24381; S25012; S18427; D64916; S23834
R:Ahmad, S.; Glavas, N.A.; Bragg, P.D.
Eur. J. Biochem. 207, 733-739, 1992
A:Title: A mutation at Gly314 of the beta subunit of the Escherichia coli pyridine nucleotide transhydrogenase
A:Reference number: S24380; MUID:92339464; PMID:1633824
A:Accession: S24381
A:Molecule type: DNA
A:Residues: 1-462 <AHM>
A:Cross-references: UNIPROT:P07002; UNIPARC:UPI0000131D63; EMBL:X66086; NID:942455; PIDN:R1Clarke, D.M.; Loo, T.W.; Gillingham, S.; Bragg, P.D.
Eur. J. Biochem. 158, 647-653, 1986
A:Title: Nucleotide sequence of the pntA and pntB genes encoding the pyridine nucleotide transhydrogenase
A:Reference number: A91172; MUID:86274751; PMID:3525165
A:Accession: B25012
A:Molecule type: DNA
A:Residues: 1-220, 'ARLVLRGGCGLYAQRPV', 242-462 <CLA>
A:Cross-references: UNIPARC:UPI000017209A; GB:D10005; GB:D00008; GB:X04195; NID:G216613; R:Tong, R.C.W.; Glavas, N.A.; Bragg, P.D.
Biochim. Biophys. Acta 1080, 19-28, 1991
A:Title: Topological analysis of the pyridine nucleotide transhydrogenase of Escherichia coli
A:Reference number: S18355; MUID:92031646; PMID:1932078
A:Accession: S18427
A:Molecule type: protein
A:Residues: 266-277; 364-373 <TON>
A:Cross-references: UNIPARC:UPI000017209B; UNIPARC:UPI000017209C
R:Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; Cohen, A.; Rose, D.J.; Mau, B.; Shao, Y. Science 277, 1453-1462, 1997
A:Title: The complete genome sequence of Escherichia coli K-12.
A:Reference number: A64720; MUID:97426617; PMID:9278503

A:Accession: D64916
A:Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-462 <BLAT>
A:Cross-references: UNIPARC:UPI0000131D63; GB:AE000255; GB:U00096; NID:G1787875; PII:1000000000
A:Experimental source: strain K-12, substrain MG1655
C:Genetics:
A:Gene: pntB
A:Map position: 35 min
C:Complex: heterotetramer; two alpha and two beta chains
C:Function:
A:Description: catalyzes the reversible hydride ion transfer between NAD and NADP; it is a

A:Pathway: NAD phosphorylation and dephosphorylation
C:Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-sp)
C:Keywords: heterotetramer; inner membrane; transmembrane protein; NAD; NADP; oxidoreductase
F:5-21/Domain: transmembrane #status predicted <TM1>
F:21-462/Domain: NAD(P)+ transhydrogenase (B-specific) beta chain homology <TBB>
F:36-52/Domain: transmembrane #status predicted <TM2>
F:59-75/Domain: transmembrane #status predicted <TM3>
F:86-102/Domain: transmembrane #status predicted <TM4>
F:125-141/Domain: transmembrane #status predicted <TM5>
F:163-179/Domain: transmembrane #status predicted <TM6>
F:184-200/Domain: transmembrane #status predicted <TM7>
F:205-221/Domain: transmembrane #status predicted <TM8>
F:240-256/Domain: transmembrane #status predicted <TM9>

Query Match 65.3%; Score 32; DB 1; Length 462;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
||| |::|
Db 91 HSFVGLAAV 99

RESULT 42

AT0682
NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) - Salmonella enterica subsp. enter
C:Species: Salmonella enterica subsp. enterica serovar Typhi
A:Note: This species has also been called Salmonella typhi
C:Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 31-Dec-2004
C:Accession: AT0682
R:Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Church, T.; Connor, P.; Cronin, A.; Davies, R.M.; Dowd, L.; White, N.; Far
S.; Moule, S.; O'Gaora, P. Nature 413, 848-852, 2001
A:Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, A.; White, N.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Church, T.; Connor, P.; Cronin, A.; Davies, R.M.; Dowd, L.; White, N.; Far
S.; Moule, S.; O'Gaora, P. Nature 413, 848-852, 2001
A:Title: Complete genome sequence of a multiple drug resistant Salmonella enterica s
A:Reference number: AB0502; MUID:21534947; PMID:11677608
A:Accession: AT0682
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-462 <PAR>
A:Cross-references: UNIPARC:UPI0000059E72; GB:AL513382; PIDN:CAD01834.1; PID:G165026
C:Genetics:
A:Gene: STY1588
C:Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-sp)
C:Keywords: oxidoreductase

Query Match 65.3%; Score 32; DB 2; Length 462;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
||| |::|
Db 91 HSFVGLAAV 99

RESULT 43

A85766
NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) beta chain - Escherichia coli (str: C)
C:Species: Escherichia coli

C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 31-Dec-2004
C;Accession: A85766
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
iller, L.; Grobeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamouisis, K.; Apodaca,
Nature 409, 529-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A;Reference number: A85480; MUID:21074935; PMID:11206551
A;Accession: A85766
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-462 <STO>
A;Cross-references: UNIPROT:P07002; UNIPARC:UPI0000131D63; GB:AE005174; NID:g12515580; F
A;Experimental source: strain O157:H7, substrain EDL933
C;Genetics:
A;Gene: pntB
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-specif
C;Keywords: oxidoreductase

Query Match 65.3%; Score 32; DB 2; Length 462;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSPFSGVASV 9
||| |.:|
Db 91 HSFVGLAAV 99

RESULT 44
D90917
NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) beta chain - Escherichia coli (strain
C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 31-Dec-2004
C;Accession: D90917
R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G.
gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and genc
A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: D90917
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-462 <HAY>
A;Cross-references: UNIPROT:P07002; UNIPARC:UPI0000131D63; GB:BA000007; PIDN:BA035731.1
A;Experimental source: strain O157:H7, substrain RMD 0509952
C;Genetics:
A;Gene: EC2308
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-specif
C;Keywords: oxidoreductase

Query Match 65.3%; Score 32; DB 2; Length 462;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSPFSGVASV 9
||| |.:|
Db 91 HSFVGLAAV 99

RESULT 45
AG0280
NAD(P) transhydrogenase (AB-specific) (EC 1.6.1.2) - Yersinia pestis (strain CO92)
C;Species: Yersinia pestis
C;Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 31-Dec-2004
C;Accession: AG0280
R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B.
deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;
il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrell,
Nature 413, 523-527, 2001
A;Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A;Reference number: AB0001; MUID:21470413; PMID:11586360
A;Accession: AG0280
A;Status: preliminary
A;Molecule type: DNA

A;Residues: 1-464 <KUR>
A;Cross-references: UNIPROT:Q8ZE80; UNIPARC:UPI000000CCFC; GB:AL590842; PIDN:CAC91107
C;Genetics:
A;Gene: pntB
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-spe
C;Keywords: oxidoreductase

Query Match 65.3%; Score 32; DB 2; Length 464;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSPFSGVASV 9
||| |.:|
Db 91 HSFVGLAAV 99

RESULT 46
B71716
transhydrogenase chain beta (pntB) RP074 - Rickettsia prowazekii
C;Species: Rickettsia prowazekii
C;Date: 21-Nov-1998 #sequence_revision 21-Nov-1998 #text_change 31-Dec-2004
C;Accession: B71716
R;Andersson, S.G.E.; Zomorodipour, A.; Andersson, J.O.; Sichteritz-Ponten, T.; Alsmark
Nature 396, 133-140, 1998
A;Title: The genome sequence of Rickettsia prowazekii and the origin of mitochondria.
A;Reference number: A71630; MUID:99039499; PMID:9823893
A;Accession: B71716
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-465 <AND>
A;Cross-references: UNIPROT:Q9ZE72; UNIPARC:UPI000000D3769; GB:AJ235270; GB:AJ235269;
A;Experimental source: strain Madrid E
C;Genetics:
A;Gene: P; RP074
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-sp
F;21-462/Domain: NAD(P)+ transhydrogenase (B-specific) beta chain homology <TBB>

Query Match 65.3%; Score 32; DB 2; Length 465;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSPFSGVASV 9
||| |.:|
Db 91 HSFVGLAAV 99

RESULT 47
H97712
hypothetical protein pntB [imported] - Rickettsia conorii (strain Malish 7)
C;Species: Rickettsia conorii
C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 31-Dec-2004
C;Accession: H97712
R;Ogata, H.; Audic, S.; Renesto-Audiffren, P.; Fournier, P.E.; Barbe, V.; Samson, D.;
Science 293, 2093-2098, 2001
A;Title: Mechanisms of Evolution in Rickettsia conorii and Rickettsia prowazekii.
A;Reference number: A97700; MUID:2142074; PMID:11557893
A;Accession: H97712
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-465 <KUR>
A;Cross-references: UNIPROT:Q92JG3; UNIPARC:UPI000000CBCA7; GB:AE006914; PIDN:AA0264;
C;Genetics:
A;Gene: pntB
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-spe

Query Match 65.3%; Score 32; DB 2; Length 465;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSPFSGVASV 9
||| |.:|
Db 91 HSFVGLAAV 99

```

RESULT 48
F64119
NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) beta chain - Haemophilus influenzae (strain 18-AUG-1995)
C;Species: Haemophilus influenzae
C;Date: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 31-Dec-2004
C;Accession: F64119
R;Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, A.;
Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, J.;
D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fuhrmann, J.L.; Geoghegan, N.S.M.
Science 269, 496-512, 1995
A;Authors: Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.; Venter,
A.;Title: Whole-genome random sequencing and assembly of Haemophilus influenzae Rd.
A;Reference number: A64000; MUID:95350630; PMID:7542800
A;Accession: F64119
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-474 <TIGR>
A;Cross-references: UNIPROT:P43010; UNIPARC:UPI0000131D64; GB:U32816; GB:I42023; NID:G15
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-specific)
C;Keywords: heterodimer; membrane protein; NAD; oxidoreductase
F:21-474/Domain: NAD(P)+ transhydrogenase (B-specific) beta chain homology <TBB>

Query Match 65.3%; Score 32; DB 2; Length 474;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
||| |.:.|
Db 91 HSFVGLAAV 99

RESULT 49
S77206
NAD(P) transhydrogenase (B-specific) (EC 1.6.1.1) beta chain - Synechocystis sp. (strain
C;Species: Synechocystis sp.
A;Variety: PCC 6803
C;Date: 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 31-Dec-2004
C;Accession: S77206
R;Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.;
O. K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda
DNA Res. 3, 109-136, 1996
A;Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis
s.
A;Reference number: S74322; MUID:97061201; PMID:8905231
A;Accession: S77206
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-480 <KAN>
A;Cross-references: UNIPROT:P73500; UNIPARC:UPI00000D33FA; EMBL:D90907; GB:AB001339; NID
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, June 1996
C;Genetics:
A;Gene: pntB
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-specific)
C;Keywords: NAD; NADP; oxidoreductase
F:21-464/Domain: NAD(P)+ transhydrogenase (B-specific) beta chain homology <TBB>

Query Match 65.3%; Score 32; DB 2; Length 480;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASV 9
||| |.:.|
Db 91 HSFVGLAAV 99

RESULT 50
A97659
pyridine nucleotide transhydrogenase beta chain (AY026033) [imported] - Agrobacterium tumefaciens
C;Species: Agrobacterium tumefaciens
C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 31-Dec-2004
C;Accession: A97659
R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Quorllo, B.; Goldman,

```

```

A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz,
Science 294, 2323-2328, 2001
A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium
A;Reference number: A97359; MUID:21608551; PMID:11743194
A;Accession: A97659
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-481 <KUR>
A;Cross-references: UNIPROT:Q8UCJ0; UNIPARC:UPI00000D1F10; GB:AE007869; PIDN:AAK8822
C;Genetics:
A;Gene: AGR_C_4531
A;Map position: circular chromosome
C;Superfamily: NAD(P) transhydrogenase, beta subunit; NAD(P)+ transhydrogenase (B-sp

```

```

Query Match 65.3%; Score 32; DB 2; Length 481;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

```

```

QY 1 HSFSGVASV 9
||| |.:.|
Db 95 HSFVGLAAV 103

```

```

Search completed: April 5, 2006, 17:43:51
Job time : 41 secs

```


GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2006, 17:55:39 ; Search time 24 Seconds
(without alignments)
12.997 Million cell updates/sec

Title: US-10-772-537-4

Perfect score: 49

Sequence: 1 HSFSGVASVE 10

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 184161 seqs, 3119182 residues

Total number of hits satisfying chosen parameters: 184161

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : Published Applications AA New:*

- 1: /SIDSS/ptodata/1/pubpaa/US08_NEW_PUB.pap.*
- 2: /SIDSS/ptodata/1/pubpaa/US06_NEW_PUB.pap.*
- 3: /SIDSS/ptodata/1/pubpaa/US07_NEW_PUB.pap.*
- 4: /SIDSS/ptodata/1/pubpaa/PCT_NEW_PUB.pap.*
- 5: /SIDSS/ptodata/1/pubpaa/US05_NEW_PUB.pap.*
- 6: /SIDSS/ptodata/1/pubpaa/US10_NEW_PUB.pap.*
- 7: /SIDSS/ptodata/1/pubpaa/US11_NEW_PUB.pap.*
- 8: /SIDSS/ptodata/1/pubpaa/US60_NEW_PUB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	49	100.0	10	6	US-10-764-945-4
2	49	100.0	10	7	US-11-178-143-4
3	46	93.9	10	6	US-10-764-945-1
4	46	93.9	10	6	US-10-764-945-5
5	46	93.9	10	6	US-10-764-945-6
6	46	93.9	10	7	US-11-178-143-1
7	46	93.9	10	7	US-11-178-143-5
8	46	93.9	10	7	US-11-178-143-6
9	46	93.9	359	6	US-10-888-962-5
10	38	77.6	10	6	US-10-764-945-7
11	38	77.6	10	7	US-11-178-143-7
12	38	77.6	345	6	US-10-888-962-7
13	38	77.6	352	6	US-10-888-962-8
14	37	75.5	447	7	US-11-112-882-4
15	36	73.5	441	7	US-11-096-568A-5071
16	36	73.5	498	7	US-11-096-568A-5071
17	36	73.5	500	7	US-11-096-568A-5070
18	34	69.4	211	6	US-10-498-026-107
19	34	69.4	211	6	US-10-498-026-108
20	33	67.3	445	7	US-11-146-428-110
21	32	65.3	143	7	US-11-096-568A-6477
22	32	65.3	175	7	US-11-096-568A-6476
23	32	65.3	181	7	US-11-096-568A-6475
24	32	65.3	461	6	US-10-467-657-6794
25	31	63.3	211	6	US-10-498-026-109
26	31	63.3	212	6	US-10-498-026-110
27	31	63.3	222	6	US-10-746-909-2
28	31	63.3	223	6	US-10-746-909-3
29	31	63.3	226	6	US-10-922-232B-65
30	31	63.3	307	6	US-11-087-099-11161
31	31	63.3	319	6	US-10-498-026-21
32	31	63.3	320	6	US-10-498-026-13
33	31	63.3	320	7	US-11-102-883-20
34	31	63.3	320	7	US-11-152-841-3
35	31	63.3	351	7	US-11-102-883-28
36	31	63.3	583	7	US-11-087-099-5245
37	31	63.3	592	6	US-10-623-155-169
38	31	63.3	791	6	US-10-623-155-170
39	31	63.3	881	6	US-10-623-155-430
40	31	63.3	920	6	US-10-623-155-357
41	31	63.3	943	6	US-10-623-155-161
42	31	63.3	1089	7	US-11-096-686-10150
43	30	61.2	124	6	US-10-467-657-3838
44	30	61.2	183	6	US-10-467-657-9192
45	30	61.2	330	6	US-10-798-579A-10
46	30	61.2	330	6	US-10-887-475B-10
47	30	61.2	387	7	US-11-087-099-976
48	30	61.2	387	7	US-11-087-099-6374
49	30	61.2	387	7	US-11-087-099-8098
50	30	61.2	387	7	US-11-087-099-9490
51	30	61.2	387	7	US-11-087-099-11913
52	30	61.2	494	7	US-11-165-697-48
53	30	61.2	496	7	US-11-165-697-50
54	30	61.2	545	7	US-11-240-406-6
55	30	61.2	567	7	US-11-019-711-105
56	30	61.2	567	7	US-11-019-711-106
57	30	61.2	577	7	US-11-087-099-4885
58	30	61.2	793	7	US-11-087-099-3278
59	30	61.2	908	7	US-11-241-956-10
60	30	61.2	1005	7	US-11-080-991-90
61	29	59.2	10	6	US-10-764-945-3
62	29	59.2	10	6	US-11-178-143-3
63	29	59.2	119	7	US-11-049-536-494
64	29	59.2	119	7	US-11-199-739-494
65	29	59.2	138	7	US-11-096-568A-4668
66	29	59.2	159	6	US-10-467-657-6388
67	29	59.2	175	7	US-11-096-568A-4667
68	29	59.2	181	7	US-11-087-099-1771
69	29	59.2	191	7	US-11-096-568A-29948
70	29	59.2	191	7	US-11-096-568A-29952
71	29	59.2	203	6	US-10-467-657-7496
72	29	59.2	204	7	US-11-096-568A-25166
73	29	59.2	211	7	US-11-096-568A-4666
74	29	59.2	214	7	US-11-096-568A-21089
75	29	59.2	215	7	US-11-087-099-9374
76	29	59.2	215	7	US-11-096-568A-29947
77	29	59.2	215	7	US-11-096-568A-29951
78	29	59.2	215	7	US-11-096-568A-31510
79	29	59.2	222	7	US-11-096-568A-20067
80	29	59.2	224	7	US-11-096-568A-20967
81	29	59.2	226	7	US-11-087-099-407
82	29	59.2	249	7	US-11-087-099-6382
83	29	59.2	250	7	US-11-087-099-565
84	29	59.2	250	7	US-11-087-099-3042
85	29	59.2	250	7	US-11-087-099-3494
86	29	59.2	250	7	US-11-087-099-5615
87	29	59.2	250	7	US-11-087-099-5732
88	29	59.2	250	7	US-11-087-099-6385
89	29	59.2	250	7	US-11-087-099-8744
90	29	59.2	250	7	US-11-087-099-9206
91	29	59.2	250	7	US-11-096-568A-29946
92	29	59.2	250	7	US-11-096-568A-29950
93	29	59.2	250	7	US-11-096-568A-31509
94	29	59.2	259	6	US-10-131-826A-304
95	29	59.2	259	6	US-10-973-115B-304
96	29	59.2	267	7	US-11-096-568A-20966
97	29	59.2	267	7	US-11-096-568A-20966
98	29	59.2	297	7	US-11-096-568A-31508

Sequence 110, Appl
Sequence 2, Appl
Sequence 3, Appl
Sequence 65, Appl
Sequence 1161, A
Sequence 21, Appl
Sequence 13, Appl
Sequence 20, Appl
Sequence 3, Appl
Sequence 28, Appl
Sequence 5245, Ap
Sequence 169, Ap
Sequence 170, Ap
Sequence 430, Ap
Sequence 357, Ap
Sequence 161, Ap
Sequence 10150, A
Sequence 3838, Ap
Sequence 9192, Ap
Sequence 10, Appl
Sequence 10, Appl
Sequence 976, Ap
Sequence 6374, Ap
Sequence 8098, Ap
Sequence 9490, Ap
Sequence 11913, A
Sequence 50, Appl
Sequence 6, Appl
Sequence 105, Appl
Sequence 106, Appl
Sequence 4885, Ap
Sequence 9278, Ap
Sequence 10, Appl
Sequence 90, Appl
Sequence 3, Appl
Sequence 3, Appl
Sequence 494, Appl
Sequence 494, Appl
Sequence 4668, Ap
Sequence 6388, Ap
Sequence 4667, Ap
Sequence 1771, Ap
Sequence 29948, A
Sequence 29952, A
Sequence 7496, Ap
Sequence 25166, A
Sequence 4666, Ap
Sequence 21089, A
Sequence 9374, Ap
Sequence 29947, A
Sequence 29951, A
Sequence 31510, A
Sequence 20067, A
Sequence 20967, A
Sequence 21088, A
Sequence 407, Ap
Sequence 565, Ap
Sequence 3042, Ap
Sequence 3494, Ap
Sequence 5615, Ap
Sequence 5732, Ap
Sequence 6352, Ap
Sequence 8385, Ap
Sequence 8744, Ap
Sequence 9206, Ap
Sequence 29946, A
Sequence 29950, A
Sequence 31509, A
Sequence 304, Appl
Sequence 20966, A
Sequence 31508, A

99 29 59.2 314 7 US-11-096-568A-20066 Sequence 20066, A
100 29 59.2 322 7 US-11-087-099-9525 Sequence 9525, Ap

ALIGNMENTS

RESULT 1
US-10-764-945-4
; Sequence 4, Application US/10764945
; Publication No. US20050282738A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT FILING DATE: 2004-01-26
; PRIOR FILING DATE: 2002-08-23
; PRIOR FILING DATE: 2001-07-09
; PRIOR FILING DATE: 1999-10-07
; PRIOR FILING DATE: 1998-09-08
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetus.
US-10-764-945-4

*same
invention
not claimed*

Query Match 100.0%; Score 49; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.001;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 2
US-11-178-143-4
; Sequence 4, Application US/11178143
; Publication No. US20050277594A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT FILING DATE: 2005-07-08
; PRIOR FILING DATE: 2004-02-05
; PRIOR FILING DATE: 2002-05-14
; PRIOR FILING DATE: 2001-07-09
; PRIOR FILING DATE: 1999-10-07
; PRIOR FILING DATE: 1998-09-08
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4

*same
invention
another
seq claimed*

; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetus.
US-11-178-143-4

Query Match 100.0%; Score 49; DB 7; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.001;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 3
US-10-764-945-1
; Sequence 1, Application US/10764945
; Publication No. US20050282738A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT FILING DATE: 2004-01-26
; PRIOR FILING DATE: 2002-08-23
; PRIOR FILING DATE: 2001-07-09
; PRIOR FILING DATE: 1999-10-07
; PRIOR FILING DATE: 1998-09-08
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetus from bovine sera
; OTHER INFORMATION: described in the specification.
US-10-764-945-1

Query Match 93.9%; Score 46; DB 6; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.004;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 4
US-10-764-945-5
; Sequence 5, Application US/10764945
; Publication No. US20050282738A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT FILING DATE: 2004-01-26
; PRIOR FILING DATE: 2002-08-23
; PRIOR FILING DATE: 2001-07-09
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4

```

; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 5
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Sheep
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-764-945-5

```

```

Query Match          93.9%; Score 46; DB 6; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.004;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

```

RESULT 5

```

US-10-764-945-6
; Sequence 6, Application US/10764945
; Publication No. US20050282738A1
; GENERAL INFORMATION:

```

```

; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/764,945

```

```

; PRIOR FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: US/10/145,682
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-764-945-6

```

```

Query Match          93.9%; Score 46; DB 6; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.004;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

```

RESULT 6

```

US-11-178-143-1
; Sequence 1, Application US/11178143
; Publication No. US20050277594A1
; GENERAL INFORMATION:

```

```

; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892

```

```

; CURRENT APPLICATION NUMBER: US/11/178,143
; PRIOR FILING DATE: 2005-07-08
; PRIOR APPLICATION NUMBER: US/10/772,537
; PRIOR FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetuin from bovine serum
; OTHER INFORMATION: described in the specification.
US-11-178-143-1

```

```

Query Match          93.9%; Score 46; DB 7; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.004;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

```

RESULT 7

```

US-11-178-143-5
; Sequence 5, Application US/11178143
; Publication No. US20050277594A1
; GENERAL INFORMATION:

```

```

; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/11/178,143

```

```

; PRIOR FILING DATE: 2005-07-08
; PRIOR APPLICATION NUMBER: US/10/772,537
; PRIOR FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 5
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Sheep
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-11-178-143-5

```

```

Query Match          93.9%; Score 46; DB 7; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.004;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

```

```

Db      1  HPSGVSASVE 10
      1  HTFSGVASVE 10

RESULT 8
US-11-178-143-6
; Sequence 6, Application US/11178143
; Publication No. US20050277594A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/11/178,143
; CURRENT FILING DATE: 2005-07-08
; PRIOR APPLICATION NUMBER: US/10/772,537
; PRIOR FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-11-178-143-6

Query Match      93.9%; Score 46; DB 7; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.004;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy      1  HPSGVSASVE 10
      1  HTFSGVASVE 10

Db      1  HPSGVSASVE 10
      1  HTFSGVASVE 10

RESULT 9
US-10-888-962-5
; Sequence 5, Application US/10888962
; Publication No. US2005026531A1
; GENERAL INFORMATION:
; APPLICANT: Saint Louis University
; APPLICANT: Ray, Ranjit
; APPLICANT: Yie-Hwa, Chang
; APPLICANT: Ray, Ratna
; APPLICANT: Basu, Arnab
; TITLE OF INVENTION: Compositions and Methods for Inhibiting Liver Steatosis Cell
; TITLE OF INVENTION: Growth
; FILE REFERENCE: SLU 03-013 PCT
; CURRENT APPLICATION NUMBER: US/10/888,962
; CURRENT FILING DATE: 2004-07-09
; PRIOR APPLICATION NUMBER: 60/487,126
; PRIOR FILING DATE: 2003-07-12
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 5
; LENGTH: 359
; TYPE: PRT
; ORGANISM: Bos taurus
US-10-888-962-5

Query Match      93.9%; Score 46; DB 6; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.17;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

US-10-888-962-5

```

```

Qy      1  HPSGVSASVE 10
      1  HTFSGVASVE 322

Db      313 HTFSGVASVE 322

RESULT 10
US-10-764-945-7
; Sequence 7, Application US/10764945
; Publication No. US20050282738A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/764,945
; CURRENT FILING DATE: 2004-01-26
; PRIOR APPLICATION NUMBER: US/10/145,682
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 7
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Mouse
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-764-945-7

Query Match      77.6%; Score 38; DB 6; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.14;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy      1  HPSGVSASVE 10
      1  HAFSPVASVE 10

Db      1  HAFSPVASVE 10

RESULT 11
US-11-178-143-7
; Sequence 7, Application US/11178143
; Publication No. US20050277594A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/11/178,143
; CURRENT FILING DATE: 2005-07-08
; PRIOR APPLICATION NUMBER: US/10/772,537
; PRIOR FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 7
; LENGTH: 10

```

; TYPE: PRT

; ORGANISM: Mouse

; LOCATION: 300..309

; OTHER INFORMATION: Polypeptide fragment from fetuin.

US-11-178-143-7

Query Match

Best Local Similarity 77.6%; Score 38; DB 7; Length 10;

Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

Db 1 HAFSPVASVE 10

RESULT 12

US-10-888-962-7

; Sequence 7, Application US/10888962

; Publication No. US20050266531A1

; GENERAL INFORMATION:

; APPLICANT: Saint Louis University

; APPLICANT: Ray, Ranjit

; APPLICANT: Yie-Hwa, Chang

; APPLICANT: Ray, Ratna

; APPLICANT: Basu, Arnab

; TITLE OF INVENTION: Compositions and Methods for Inhibiting Liver Stellate Cell

; FILE REFERENCE: SLU 03-013 PCT

; CURRENT APPLICATION NUMBER: US/10/888,962

; CURRENT FILING DATE: 2004-07-09

; PRIOR APPLICATION NUMBER: 60/487,126

; PRIOR FILING DATE: 2003-07-12

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: PatentIn version 3.2

; SEQ ID NO 7

; LENGTH: 345

; TYPE: PRT

; ORGANISM: Mus musculus

US-10-888-962-7

Query Match

Best Local Similarity 77.6%; Score 38; DB 6; Length 345;

Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

Db 302 HAFSPVASVE 311

RESULT 13

US-10-888-962-8

; Sequence 8, Application US/10888962

; Publication No. US20050266531A1

; GENERAL INFORMATION:

; APPLICANT: Saint Louis University

; APPLICANT: Ray, Ranjit

; APPLICANT: Yie-Hwa, Chang

; APPLICANT: Ray, Ratna

; APPLICANT: Basu, Arnab

; TITLE OF INVENTION: Compositions and Methods for Inhibiting Liver Stellate Cell

; FILE REFERENCE: SLU 03-013 PCT

; CURRENT APPLICATION NUMBER: US/10/888,962

; CURRENT FILING DATE: 2004-07-09

; PRIOR APPLICATION NUMBER: 60/487,126

; PRIOR FILING DATE: 2003-07-12

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: PatentIn version 3.2

; SEQ ID NO 8

; LENGTH: 352

; TYPE: PRT

; ORGANISM: Rattus norvegicus

US-10-888-962-8

Query Match 77.6%; Score 38; DB 6; Length 352;

Best Local Similarity 80.0%; Pred. No. 5.8;

Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

Db 306 HAFSPVASVE 315

RESULT 14

US-11-112-882-4

; Sequence 4, Application US/11112882

; Publication No. US20050273885A1

; GENERAL INFORMATION:

; APPLICANT: Commonwealth Scientific and Industrial Research Organisation

; TITLE OF INVENTION: Synthesis of Long-Chain Polyunsaturated Fatty Acids in Recomb

; FILE REFERENCE: 503244

; CURRENT APPLICATION NUMBER: US/11/112,882

; CURRENT FILING DATE: 2005-04-22

; NUMBER OF SEQ ID NOS: 89

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 4

; LENGTH: 447

; TYPE: PRT

; ORGANISM: Pavlova salina

US-11-112-882-4

Query Match

Best Local Similarity 75.5%; Score 37; DB 7; Length 447;

Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASV 9

Db 337 HNFEGVASV 345

RESULT 15

US-11-096-568A-5072

; Sequence 5072, Application US/11096568A

; Publication No. US20060048240A1

; GENERAL INFORMATION:

; APPLICANT: Alexandrov, Nickolai et al.

; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypepti

; FILE REFERENCE: 2750-1592PUS2

; CURRENT APPLICATION NUMBER: US/11/096,568A

; CURRENT FILING DATE: 2005-04-01

; NUMBER OF SEQ ID NOS: 34471

; SEQ ID NO 5072

; LENGTH: 441

; TYPE: PRT

; ORGANISM: Glycine max

; FEATURE:

; NAME/KEY: misc feature

; LOCATION: (1)-(441)

; OTHER INFORMATION: Ceres Seq. ID no. 14306860

US-11-096-568A-5072

Query Match

Best Local Similarity 73.5%; Score 36; DB 7; Length 441;

Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10

Db 84 HSPSGIRSD 93

RESULT 16

US-11-096-568A-5071

; Sequence 5071, Application US/11096568A

; Publication No. US20060048240A1

; GENERAL INFORMATION:

```
; APPLICANT: Alexandrov, Nickolai et al.
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; FILE REFERENCE: 2750-1592PUS2
; CURRENT APPLICATION NUMBER: US/11/096,568A
; CURRENT FILING DATE: 2005-04-01
; NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 5071
; LENGTH: 498
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(498)
; OTHER INFORMATION: Ceres Seq. ID no. 14306859
US-11-096-568A-5071

Query Match      73.5%; Score 36; DB 7; Length 498;
Best Local Similarity 70.0%; Pred. No. 21;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy      1 HSPSGVASVE 10
Db      141 HSPSGIRSD 150

RESULT 17
US-11-096-568A-5070
; Sequence 5070, Application US/11096568A
; Publication No. US20060048240A1
; GENERAL INFORMATION:
; APPLICANT: Alexandrov, Nickolai et al.
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; FILE REFERENCE: 2750-1592PUS2
; CURRENT APPLICATION NUMBER: US/11/096,568A
; CURRENT FILING DATE: 2005-04-01
; NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 5070
; LENGTH: 500
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(500)
; OTHER INFORMATION: Ceres Seq. ID no. 14306858
US-11-096-568A-5070

Query Match      73.5%; Score 36; DB 7; Length 500;
Best Local Similarity 70.0%; Pred. No. 21;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy      1 HSPSGVASVE 10
Db      143 HSPSGIRSD 152

RESULT 18
US-10-498-026-107
; Sequence 107, Application US/10498026
; Publication No. US20060024334A1
; GENERAL INFORMATION:
; APPLICANT: CIRCASSIA LIMITED
; TITLE OF INVENTION: IMMUNOTHERAPEUTIC METHODS AND SYSTEMS
; FILE REFERENCE: N.87430 WO GCW
; CURRENT APPLICATION NUMBER: US/10/498,026
; CURRENT FILING DATE: 2004-06-04
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 107
; LENGTH: 211
; TYPE: PRT
; ORGANISM: Euroglyphus maynei
```

US-10-498-026-107

```
Query Match      69.4%; Score 34; DB 6; Length 211;
Best Local Similarity 77.8%; Pred. No. 20;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

```
Qy      2 SPSGVASVE 10
Db      37 AFSGVASTE 45
```

RESULT 19

```
US-10-498-026-108
; Sequence 108, Application US/10498026
; Publication No. US20060024334A1
; GENERAL INFORMATION:
```

```
; APPLICANT: CIRCASSIA LIMITED
; TITLE OF INVENTION: IMMUNOTHERAPEUTIC METHODS AND SYSTEMS
; FILE REFERENCE: N.87430 WO GCW
; CURRENT APPLICATION NUMBER: US/10/498,026
; CURRENT FILING DATE: 2004-06-04
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 108
; LENGTH: 211
; TYPE: PRT
; ORGANISM: Euroglyphus maynei
US-10-498-026-108
```

```
Query Match      69.4%; Score 34; DB 6; Length 211;
Best Local Similarity 77.8%; Pred. No. 20;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

```
Qy      2 SPSGVASVE 10
Db      37 AFSGVASTE 45
```

RESULT 20

```
US-11-146-428-110
; Sequence 110, Application US/11146428
; Publication No. US20060051847A1
; GENERAL INFORMATION:
```

```
; APPLICANT: GUNNARSSON, NINA KATARINA
; APPLICANT: FORSTER, JOCHEN
; APPLICANT: NEILSEN, JENS BREDAL
; TITLE OF INVENTION: METABOLICALLY ENGINEERED CELLS FOR THE
; FILE REFERENCE: 671306-2001.1
; CURRENT APPLICATION NUMBER: US/11/146,428
; CURRENT FILING DATE: 2005-06-06
; PRIOR APPLICATION NUMBER: 60/577,245
; PRIOR FILING DATE: 2004-06-04
; NUMBER OF SEQ ID NOS: 227
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 110
; LENGTH: 445
; TYPE: PRT
; ORGANISM: Pavlova lutheri
US-11-146-428-110
```

```
Query Match      67.3%; Score 33; DB 7; Length 445;
Best Local Similarity 66.7%; Pred. No. 70;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
```

```
Qy      1 HSPSGVASV 9
Db      334 HNFDSGVSV 342
```

RESULT 21

```
US-11-096-568A-6477
; Sequence 6477, Application US/11096568A
```

```
; Publication No. US20060048240A1
; GENERAL INFORMATION:
; APPLICANT: Alexandrov, Nikolai et al.
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; FILE REFERENCE: 2750-1592PUS2
; CURRENT APPLICATION NUMBER: US/11/096,568A
; CURRENT FILING DATE: 2005-04-01
; NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 6477
; LENGTH: 143
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1)..(143)
; OTHER INFORMATION: Ceres Seq. ID no. 14315300
US-11-096-568A-6477

Query Match      65.3%; Score 32; DB 7; Length 143;
Best Local Similarity 77.8%; Pred. No. 33;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPSGVASVE 10
Db 61 SFSSLASVE 69

RESULT 22
US-11-096-568A-6476
; Sequence 6476, Application US/11096568A
; Publication No. US20060048240A1
; GENERAL INFORMATION:
; APPLICANT: Alexandrov, Nikolai et al.
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; FILE REFERENCE: 2750-1592PUS2
; CURRENT APPLICATION NUMBER: US/11/096,568A
; CURRENT FILING DATE: 2005-04-01
; NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 6476
; LENGTH: 175
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1)..(175)
; OTHER INFORMATION: Ceres Seq. ID no. 14315299
US-11-096-568A-6476

Query Match      65.3%; Score 32; DB 7; Length 175;
Best Local Similarity 77.8%; Pred. No. 41;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPSGVASVE 10
Db 93 SFSSLASVE 101

RESULT 23
US-11-096-568A-6475
; Sequence 6475, Application US/11096568A
; Publication No. US20060048240A1
; GENERAL INFORMATION:
; APPLICANT: Alexandrov, Nikolai et al.
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; FILE REFERENCE: 2750-1592PUS2
; CURRENT APPLICATION NUMBER: US/11/096,568A
; CURRENT FILING DATE: 2005-04-01
; NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 6475
; LENGTH: 181
```

```
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1)..(181)
; OTHER INFORMATION: Ceres Seq. ID no. 14315298
US-11-096-568A-6475

Query Match      65.3%; Score 32; DB 7; Length 181;
Best Local Similarity 77.8%; Pred. No. 43;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPSGVASVE 10
Db 99 SFSSLASVE 107

RESULT 24
US-10-467-657-6794
; Sequence 6794, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 6794
; LENGTH: 461
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-6794

Query Match      65.3%; Score 32; DB 6; Length 461;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASV 9
Db 91 HSPVGLAAV 99

RESULT 25
US-10-498-026-109
; Sequence 109, Application US/10498026
; Publication No. US20060024334A1
; GENERAL INFORMATION:
; APPLICANT: CIRCASSIA LIMITED
; TITLE OF INVENTION: IMMUNOTHERAPEUTIC METHODS AND SYSTEMS
; FILE REFERENCE: N.87430 WO GCW
; CURRENT APPLICATION NUMBER: US/10/498,026
; CURRENT FILING DATE: 2004-06-04
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 109
; LENGTH: 211
; TYPE: PRT
; ORGANISM: Euroglyphus maynei
US-10-498-026-109

Query Match      63.3%; Score 31; DB 6; Length 211;
Best Local Similarity 66.7%; Pred. No. 78;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 SPSGVASVE 10
```

Db 37 AFSGVAATE 45
:|||||:|

RESULT 26

US-10-498-026-110
; Sequence 110, Application US/10498026
; Publication No. US20060024334A1
; GENERAL INFORMATION:
; APPLICANT: CIRCASSIA LIMITED
; TITLE OF INVENTION: IMMUNOTHERAPEUTIC METHODS AND SYSTEMS
; FILE REFERENCE: N.87430 WO GCW
; CURRENT APPLICATION NUMBER: US/10/498,026
; CURRENT FILING DATE: 2004-06-04
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 110
; LENGTH: 212
; TYPE: PRT
; ORGANISM: Euroglyphus maynei
US-10-498-026-110

Query Match 63.3%; Score 31; DB 6; Length 212;
Best Local Similarity 66.7%; Pred. No. 79;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SFGVASVE 10
:|||||:|
Db 38 AFSGVAATE 46

RESULT 27

US-10-746-909-2
; Sequence 2, Application US/10746909
; Publication No. US20060008873A1
; GENERAL INFORMATION:
; APPLICANT: Chua, Kaw-yan
; TITLE OF INVENTION: CLONING AND SEQUENCING OF ALLERGENS OF
; TITLE OF INVENTION: DERMATOPHAGOIDES (HOUSE DUST MITE)
; FILE REFERENCE: IMI-005CNDV2
; CURRENT APPLICATION NUMBER: US/10/746,909
; CURRENT FILING DATE: 2003-12-23
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 08/107,332
; PRIOR FILING DATE: 1993-08-16
; PRIOR APPLICATION NUMBER: 07/580,655
; PRIOR FILING DATE: 1990-09-11
; PRIOR APPLICATION NUMBER: 07/458,642
; PRIOR FILING DATE: 1990-02-13
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 222
; TYPE: PRT
; ORGANISM: Dermatophagoides sp.
US-10-746-909-2

Query Match 63.3%; Score 31; DB 6; Length 222;
Best Local Similarity 66.7%; Pred. No. 82;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SFGVASVE 10
:|||||:|
Db 36 AFSGVAATE 44

RESULT 28

US-10-746-909-3
; Sequence 3, Application US/10746909
; Publication No. US20060008873A1
; GENERAL INFORMATION:

; APPLICANT: Wayne, Robert Thomas
; APPLICANT: Chua, Kaw-yan
; TITLE OF INVENTION: CLONING AND SEQUENCING OF ALLERGENS OF
; TITLE OF INVENTION: DERMATOPHAGOIDES (HOUSE DUST MITE)
; FILE REFERENCE: IMI-005CNDV2
; CURRENT APPLICATION NUMBER: US/10/746,909
; CURRENT FILING DATE: 2003-12-23
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 08/107,332
; PRIOR FILING DATE: 1993-08-16
; PRIOR APPLICATION NUMBER: 07/580,655
; PRIOR FILING DATE: 1990-09-11
; PRIOR APPLICATION NUMBER: 07/458,642
; PRIOR FILING DATE: 1990-02-13
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 223
; TYPE: PRT
; ORGANISM: Dermatophagoides sp.
US-10-746-909-3

Query Match 63.3%; Score 31; DB 6; Length 223;
Best Local Similarity 66.7%; Pred. No. 83;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SFGVASVE 10
:|||||:|
Db 37 AFSGVAATE 45

RESULT 29

US-10-922-232B-65
; Sequence 65, Application US/10922232B
; Publication No. US20060024668A1
; GENERAL INFORMATION:
; APPLICANT: van der Hoek, Cornelia
; TITLE OF INVENTION: Coronavirus, nucleic acid, protein, and methods for the genera
; TITLE OF INVENTION: vaccine, medicaments and diagnostics.
; FILE REFERENCE: 294-226
; CURRENT APPLICATION NUMBER: US/10/922,232B
; CURRENT FILING DATE: 2004-08-18
; PRIOR FILING DATE: 2004-01-07
; PRIOR APPLICATION NUMBER: US 60/535,002
; PRIOR FILING DATE: 2004-01-07
; PRIOR APPLICATION NUMBER: EP 03077602.5
; PRIOR FILING DATE: 2003-08-18
; PRIOR APPLICATION NUMBER: EP 04075050.7
; PRIOR FILING DATE: 2004-01-07
; NUMBER OF SEQ ID NOS: 66
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 65
; LENGTH: 226
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic sequence.
; OTHER INFORMATION: rix/glycoprotein.
US-10-922-232B-65

Query Match 63.3%; Score 31; DB 6; Length 226;
Best Local Similarity 87.5%; Pred. No. 84;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 3 FSGVASVE 10
:|||||:|
Db 206 FSGVASOE 213

RESULT 30

US-11-087-099-11161
; Sequence 11161, Application US/11087099
; Publication No. US20060041961A1


```
/ GENERAL INFORMATION:
/ APPLICANT: Abad, Mark S. et al.
/ TITLE OF INVENTION: Genes and Uses for Plant Improvement
/ FILE REFERENCE: 38-21(53450)B EP
/ CURRENT APPLICATION NUMBER: US/11/087,099
/ CURRENT FILING DATE: 2005-03-22
/ NUMBER OF SEQ ID NOS: 12464
/ SEQ ID NO 11161
/ LENGTH: 307
/ TYPE: PRT
/ ORGANISM: Trichodesmium erythraeum IMS101
US-11-087-099-11161

Query Match          63.3%; Score 31; DB 7; Length 307;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY      1 HPSGVASV 9
DB      88 HRFSGVIN 96

RESULT 31
US-10-498-026-21
/ Sequence 21, Application US/10498026
/ Publication No. US20060024334A1
/ GENERAL INFORMATION:
/ APPLICANT: CIRCASSIA LIMITED
/ TITLE OF INVENTION: IMMUNOTHERAPEUTIC METHODS AND SYSTEMS
/ FILE REFERENCE: N.87430 WO GCW
/ CURRENT APPLICATION NUMBER: US/10/498,026
/ CURRENT FILING DATE: 2004-06-04
/ NUMBER OF SEQ ID NOS: 118
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 21
/ LENGTH: 319
/ TYPE: PRT
/ ORGANISM: Dermatophagoides farinae
US-10-498-026-21
```

```
Query Match          63.3%; Score 31; DB 6; Length 319;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      2 SFGSVASVE 10
DB      133 AFSGVAATE 141
```

```
RESULT 32
US-10-498-026-13
/ Sequence 13, Application US/10498026
/ Publication No. US20060024334A1
/ GENERAL INFORMATION:
/ APPLICANT: CIRCASSIA LIMITED
/ TITLE OF INVENTION: IMMUNOTHERAPEUTIC METHODS AND SYSTEMS
/ FILE REFERENCE: N.87430 WO GCW
/ CURRENT APPLICATION NUMBER: US/10/498,026
/ CURRENT FILING DATE: 2004-06-04
/ NUMBER OF SEQ ID NOS: 118
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 13
/ LENGTH: 320
/ TYPE: PRT
/ ORGANISM: Dermatophagoides pteronyssinus
US-10-498-026-13
```

```
Query Match          63.3%; Score 31; DB 6; Length 320;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      2 SFGSVASVE 10
          :|||||: |
```

```
Db      134 AFSGVAATE 142

RESULT 33
US-11-102-883-20
/ Sequence 20, Application US/11102883
/ Publication No. US20050281816A1
/ GENERAL INFORMATION:
/ APPLICANT: Lampung, Norbert
/ APPLICANT: Cramerl, Reto
/ APPLICANT: Fluckiger, Sabina
/ APPLICANT: Daigle, Isabelle
/ TITLE OF INVENTION: Modular Antigen Transporter Molecules (MAT Molecules) for
/ TITLE OF INVENTION: Modulating Immune Reactions, Associated Constructs, Methods
/ TITLE OF INVENTION: Uses Thereof
/ FILE REFERENCE: 03100234pa
/ CURRENT APPLICATION NUMBER: US/11/102,883
/ CURRENT FILING DATE: 2005-04-11
/ PRIOR APPLICATION NUMBER: EP02022774.0
/ PRIOR FILING DATE: 2002-10-11
/ PRIOR APPLICATION NUMBER: PCT/EP2003/011190
/ PRIOR FILING DATE: 2003-10-09
/ NUMBER OF SEQ ID NOS: 44
/ SOFTWARE: PatentIn version 3.2
/ SEQ ID NO 20
/ LENGTH: 320
/ TYPE: PRT
/ ORGANISM: Dermatophagoides pteronyssinus
US-11-102-883-20
```

```
Query Match          63.3%; Score 31; DB 7; Length 320;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      2 SFGSVASVE 10
          :|||||: |
```

```
Db      134 AFSGVAATE 142
```

```
RESULT 34
US-11-152-811-3
/ Sequence 3, Application US/11152811
/ Publication No. US20060003414A1
/ GENERAL INFORMATION:
/ APPLICANT: Matsui, Tomoko
/ APPLICANT: Draborg, Henriette
/ APPLICANT: Danielssen, Steffen
/ TITLE OF INVENTION: Signal Peptide for Producing a Polypeptide
/ FILE REFERENCE: 10656.200-US
/ CURRENT APPLICATION NUMBER: US/11/152,811
/ CURRENT FILING DATE: 2005-06-14
/ NUMBER OF SEQ ID NOS: 32
/ SOFTWARE: PatentIn version 3.3
/ SEQ ID NO 3
/ LENGTH: 320
/ TYPE: PRT
/ ORGANISM: Dermatophagoides pteronyssinus
/ FEATURE:
/ NAME/KEY: SIGNAL
/ LOCATION: (1)..(18)
/ FEATURE:
/ NAME/KEY: PROPEP
/ LOCATION: (19)..(98)
/ FEATURE:
/ NAME/KEY: mat peptide
/ LOCATION: (99)..(320)
US-11-152-811-3
```

```
Query Match          63.3%; Score 31; DB 7; Length 320;
Best Local Similarity 66.7%; Pred. No. 1.2e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
```

```
QY      2 SFGSVASVE 10
```

```
Db      134 AFSGVAATE 142
      :|||||: |
      :|||||: |

RESULT 35
US-11-102-883-28
; Sequence 28, Application US/11102883
; Publication No. US20050281816A1
; GENERAL INFORMATION:
; APPLICANT: Lamping, Norbert
; APPLICANT: Crameri, Reto
; APPLICANT: Fluckiger, Sabina
; APPLICANT: Daigle, Isabelle
; TITLE OF INVENTION: Modular Antigen Transporter Molecules (M&T Molecules) for
; TITLE OF INVENTION: Modulating Immune Reactions, Associated Constructs, Methods and
; TITLE OF INVENTION: Uses Thereof
; FILE REFERENCE: 03100234pa
; CURRENT APPLICATION NUMBER: US/11/102,883
; CURRENT FILING DATE: 2005-04-11
; PRIOR APPLICATION NUMBER: EP02022774.0
; PRIOR FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: PCT/EP2003/011190
; PRIOR FILING DATE: 2003-10-09
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 28
; LENGTH: 351
; TYPE: PRT
; ORGANISM: tat-1i-der p 1
US-11-102-883-28

Query Match      63.3%; Score 31; DB 7; Length 351;
Best Local Similarity 66.7%; Pred. No. 1.3e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      2 SPSGVASVE 10
      :|||||: |
      :|||||: |
Db      165 AFSGVAATE 173

RESULT 36
US-11-087-099-5245
; Sequence 5245, Application US/11087099
; Publication No. US20060041961A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S. et al.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(53450)B EP
; CURRENT APPLICATION NUMBER: US/11/087,099
; CURRENT FILING DATE: 2005-03-22
; NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 5245
; LENGTH: 583
; TYPE: PRT
; ORGANISM: Schizosaccharomyces pombe
US-11-087-099-5245

Query Match      63.3%; Score 31; DB 7; Length 583;
Best Local Similarity 66.7%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY      1 HSPSGVASV 9
      :|||: |
      :|||: |
Db      268 HSPKGFCSV 276

RESULT 37
US-10-623-155-169
; Sequence 169, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
US-10-623-155-169

Query Match      63.3%; Score 31; DB 6; Length 592;
Best Local Similarity 50.0%; Pred. No. 2.3e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY      1 HSPSGVASVE 10
      |:|:|:|
      |:|:|:|
Db      346 HTFVGIASFD 355

RESULT 38
US-10-623-155-170
; Sequence 170, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 170
; LENGTH: 791
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-170

Query Match      63.3%; Score 31; DB 6; Length 791;
Best Local Similarity 50.0%; Pred. No. 3.1e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

QY      1 HSPSGVASVE 10
      |:|:|:|
      |:|:|:|
Db      346 HTFVGIASFD 355

RESULT 39
US-10-623-155-430
; Sequence 430, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 430
; LENGTH: 881
```

```
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-430

Query Match      63.3%; Score 31; DB 6; Length 881;
Best Local Similarity 50.0%; Pred. No. 3.5e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPGVSASVE 10
Db 323 HTFVGIA SFD 332

RESULT 40
US-10-623-155-357
; Sequence 357, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 357
; LENGTH: 920
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-357.

Query Match      63.3%; Score 31; DB 6; Length 920;
Best Local Similarity 50.0%; Pred. No. 3.6e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPGVSASVE 10
Db 323 HTFVGIA SFD 332

RESULT 41
US-10-623-155-161
; Sequence 161, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 161
; LENGTH: 943
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-161

Query Match      63.3%; Score 31; DB 6; Length 943;
Best Local Similarity 50.0%; Pred. No. 3.7e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSPGVSASVE 10
Db 346 HTFVGIA SFD 355

RESULT 42
US-11-098-686-10150
; Sequence 10150, Application US/11098686
; Publication No. US20060024696A1
; GENERAL INFORMATION:
; APPLICANT: Kapur, Vivek and Gebhart, Connie J.
; TITLE OF INVENTION: NUCLEIC ACID AND POLYPEPTIDE SEQUENCES
; FILE REFERENCE: 09S31-128001
; CURRENT APPLICATION NUMBER: US/11/098,686
; CURRENT FILING DATE: 2005-04-04
; PRIOR APPLICATION NUMBER: PCT/US03/31318
; PRIOR FILING DATE: 2003-10-01
; PRIOR APPLICATION NUMBER: US 60/416,395
; PRIOR FILING DATE: 2002-10-04
; NUMBER OF SEQ ID NOS: 11433
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10150
; LENGTH: 1089
; TYPE: PRT
; ORGANISM: Lawsonia intracellularis
US-11-098-686-10150

Query Match      63.3%; Score 31; DB 7; Length 1089;
Best Local Similarity 75.0%; Pred. No. 4.4e+02;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 SFGVSASV 9
Db 82 SFGVSASV 89

RESULT 43
US-10-467-657-3838
; Sequence 3838, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 3838
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-3838

Query Match      61.2%; Score 30; DB 6; Length 124;
Best Local Similarity 77.8%; Pred. No. 70;
Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2 SFGVSASVE 10
Db 80 SVKGVASVE 88

RESULT 44
US-10-467-657-9192
; Sequence 9192, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
```

; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASNAGNI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: Seqwin99, version 1.04
; SEQ ID NO 9192
; LENGTH: 183
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-9192

Query Match 61.2%; Score 30; DB 6; Length 183;
Best Local Similarity 66.7%; Pred. No. 1.1e+02;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSPSGVASV 9
|:|||||
Db 23 HTFSGEAPV 31

RESULT 45

US-10-798-579A-10
; Sequence 10, Application US/10798579A
; Publication No. US20060005281A1
; GENERAL INFORMATION:
; APPLICANT: Kirin Beer Kabushiki Kaisha; Japan International Research Center for
; APPLICANT: Agricultural Sciences
; TITLE OF INVENTION: A production of plants having improved rooting efficiency and var
; FILE REFERENCE: PH-2034
; CURRENT APPLICATION NUMBER: US/10/798,579A
; CURRENT FILING DATE: 2004-03-12
; PRIOR APPLICATION NUMBER: JP 2003-071082
; PRIOR FILING DATE: 2003-03-14
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 10
; LENGTH: 330
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-10-798-579A-10

Query Match 61.2%; Score 30; DB 6; Length 330;
Best Local Similarity 40.0%; Pred. No. 2e+02;
Matches 4; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|:||||:
Db 320 HEFNGLSLD 329

RESULT 46

US-10-887-475B-10
; Sequence 10, Application US/10887475B
; Publication No. US20060015973A1
; GENERAL INFORMATION:
; APPLICANT: SHINOZAKI, Kazuko;
; APPLICANT: KASUGA, Mie;
; APPLICANT: SAKUNA, Yoh
; TITLE OF INVENTION: Environmental stress-tolerant plants
; FILE REFERENCE: 382.1029CIP
; CURRENT APPLICATION NUMBER: US/10/887,475B
; CURRENT FILING DATE: 2004-07-08
; PRIOR APPLICATION NUMBER: US 10/664,771
; PRIOR FILING DATE: 2003-09-19
; PRIOR APPLICATION NUMBER: US 09/301,217
; PRIOR FILING DATE: 1999-04-28

; PRIOR APPLICATION NUMBER: JP 10-292348
; PRIOR FILING DATE: 1998-10-14
; NUMBER OF SEQ ID NOS: 75
; SEQ ID NO 10
; LENGTH: 330
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-10-887-475B-10

Query Match 61.2%; Score 30; DB 6; Length 330;
Best Local Similarity 40.0%; Pred. No. 2e+02;
Matches 4; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|:||||:
Db 320 HEFNGLSLD 329

RESULT 47

US-11-087-099-976
; Sequence 976, Application US/11087099
; Publication No. US20060041961A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S. et al.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(53450)B EP
; CURRENT APPLICATION NUMBER: US/11/087,099
; CURRENT FILING DATE: 2005-03-22
; NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 976
; LENGTH: 387
; TYPE: PRT
; ORGANISM: Gaeumannomyces graminis var. tritici
US-11-087-099-976

Query Match 61.2%; Score 30; DB 7; Length 387;
Best Local Similarity 85.7%; Pred. No. 2.3e+02;
Matches 6; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 4 SGVASVE 10
|:||||:
Db 285 SGVASIE 291

RESULT 48

US-11-087-099-6374
; Sequence 6374, Application US/11087099
; Publication No. US20060041961A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S. et al.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(53450)B EP
; CURRENT APPLICATION NUMBER: US/11/087,099
; CURRENT FILING DATE: 2005-03-22
; NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 6374
; LENGTH: 387
; TYPE: PRT
; ORGANISM: Gaeumannomyces graminis var. graminis
US-11-087-099-6374

Query Match 61.2%; Score 30; DB 7; Length 387;
Best Local Similarity 85.7%; Pred. No. 2.3e+02;
Matches 6; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 4 SGVASVE 10
|:||||:
Db 285 SGVASIE 291

RESULT 49

US-11-087-099-8098
; Sequence 8098, Application US/11087099

; Publication No. US20060041961A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S. et al.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(53450)B EP
; CURRENT APPLICATION NUMBER: US/11/087,099
; CURRENT FILING DATE: 2005-03-22
; NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 8098
; LENGTH: 387
; TYPE: PRT
; ORGANISM: Gaeumannomyces graminis var. avenae
US-11-087-099-8098

Query Match 61.2%; Score 30; DB 7; Length 387;
Best Local Similarity 85.7%; Pred. No. 2.3e+02;
Matches 6; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 4 SGVASVE 10
| | | | |
Db 285 SGVASIE 291

RESULT 50
US-11-087-099-9490
; Sequence 9490, Application US/11087099
; Publication No. US20060041961A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S. et al.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(53450)B EP
; CURRENT APPLICATION NUMBER: US/11/087,099
; CURRENT FILING DATE: 2005-03-22
; NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 9490
; LENGTH: 387
; TYPE: PRT
; ORGANISM: Gaeumannomyces graminis var. tritici
US-11-087-099-9490

Query Match 61.2%; Score 30; DB 7; Length 387;
Best Local Similarity 85.7%; Pred. No. 2.3e+02;
Matches 6; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 4 SGVASVE 10
| | | | |
Db 285 SGVASIE 291

Search completed: April 5, 2006, 17:58:44
Job time : 25 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2006, 17:54:38 ; Search time 165 Seconds
(without alignments)
25.323 Million cell updates/sec

Title: US-10-772-537-4
Perfect score: 49
Sequence: 1 HSFSGVASVE 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues
Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 100 summaries

Database : Published Applications AA Main:
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	49	100.0	10	4	US-10-145-682A-4
2	49	100.0	10	4	US-10-221-662-4
3	49	100.0	10	4	US-10-267-706-4
4	49	100.0	10	5	US-10-772-537-4
5	46	93.9	10	4	US-10-145-682A-1
6	46	93.9	10	4	US-10-145-682A-5
7	46	93.9	10	4	US-10-145-682A-6
8	46	93.9	10	4	US-10-221-662-1
9	46	93.9	10	4	US-10-221-662-5
10	46	93.9	10	4	US-10-221-662-6
11	46	93.9	10	4	US-10-267-706-1
12	46	93.9	10	4	US-10-267-706-5
13	46	93.9	10	4	US-10-267-706-6
14	46	93.9	10	5	US-10-772-537-1
15	46	93.9	10	5	US-10-772-537-5
16	46	93.9	10	5	US-10-772-537-6
17	46	93.9	359	4	US-10-415-288-7
18	38	77.6	10	4	US-10-145-682A-7
19	38	77.6	10	4	US-10-221-662-7
20	38	77.6	10	4	US-10-267-706-7
21	38	77.6	10	5	US-10-772-537-7
22	38	77.6	346	4	US-10-415-288-5
23	38	77.6	352	4	US-10-316-253-84
24	38	77.6	352	4	US-10-316-253-86
25	38	77.6	352	4	US-10-415-288-6
26	37	75.5	713	3	US-09-909-320-245
27	37	75.5	713	3	US-09-909-088B-245
28	37	75.5	713	3	US-09-905-291A-245
29	37	75.5	713	3	US-09-902-853-245
30	37	75.5	713	3	US-09-907-824-245
31	37	75.5	713	3	US-09-907-841-245
32	37	75.5	713	3	US-09-904-011-245
33	37	75.5	713	3	US-09-903-640-245
34	37	75.5	713	3	US-09-908-093-245
35	37	75.5	713	3	US-09-906-742-245
36	37	75.5	713	3	US-09-906-838-245
37	37	75.5	713	3	US-09-907-613-245
38	37	75.5	713	3	US-09-907-942-245
39	37	75.5	713	3	US-09-904-859-245
40	37	75.5	713	3	US-09-909-204-245
41	37	75.5	713	3	US-09-904-820-245
42	37	75.5	713	3	US-09-904-786-245
43	37	75.5	713	3	US-09-906-646-245
44	37	75.5	713	3	US-09-906-700-245
45	37	75.5	713	3	US-09-903-786-245
46	37	75.5	713	3	US-09-903-903-245
47	37	75.5	713	3	US-09-903-748A-245
48	37	75.5	713	3	US-09-904-119-245
49	37	75.5	713	3	US-09-904-956-245
50	37	75.5	713	3	US-09-902-736-245
51	37	75.5	713	3	US-09-907-794-245
52	37	75.5	713	3	US-09-903-943-245
53	37	75.5	713	3	US-09-904-462-245
54	37	75.5	713	3	US-09-907-925-245
55	37	75.5	713	3	US-09-902-692-245
56	37	75.5	713	3	US-09-903-520-245
57	37	75.5	713	3	US-09-905-056-245
58	37	75.5	713	3	US-09-909-064-245
59	37	75.5	713	3	US-09-904-533-245
60	37	75.5	713	3	US-09-905-381-245
61	37	75.5	713	3	US-09-904-485-245
62	37	75.5	713	3	US-09-905-348-245
63	37	75.5	713	3	US-09-905-088-245
64	37	75.5	713	3	US-09-907-575-245
65	37	75.5	713	3	US-09-905-075-245
66	37	75.5	713	3	US-09-902-759-245
67	37	75.5	713	3	US-09-902-634-245
68	37	75.5	713	3	US-09-902-713-245
69	37	75.5	713	3	US-09-907-979-245
70	37	75.5	713	3	US-09-902-615-245
71	37	75.5	713	3	US-09-903-925-245
72	37	75.5	713	3	US-09-906-760A-245
73	37	75.5	713	3	US-09-903-823-245
74	37	75.5	713	3	US-09-907-652-245
75	37	75.5	713	3	US-09-902-572A-245
76	37	75.5	713	3	US-09-902-979-245
77	37	75.5	713	3	US-09-905-125-245
78	37	75.5	713	3	US-09-906-815A-245
79	37	75.5	713	3	US-09-905-449-245
80	37	75.5	713	3	US-09-903-806-245
81	37	75.5	713	3	US-09-904-992-245
82	37	75.5	713	3	US-09-904-838-245
83	37	75.5	713	3	US-09-906-777-245
84	37	75.5	713	3	US-09-903-603A-245
85	37	75.5	713	3	US-09-904-532-245
86	37	75.5	713	3	US-09-904-766-245
87	37	75.5	713	3	US-09-904-920A-245
88	37	75.5	713	3	US-09-904-877A-245
89	37	75.5	713	3	US-09-903-562-245
90	37	75.5	713	3	US-09-906-618-245
91	37	75.5	713	3	US-09-907-728-245
92	37	75.5	713	3	US-09-904-805-245
93	37	75.5	713	3	US-09-904-938A-245
94	37	75.5	713	3	US-09-906-722A-245
95	37	75.5	713	3	US-09-908-576-245
96	37	75.5	713	4	US-10-125-166-4
97	37	75.5	713	4	US-10-274-583-22
98	37	75.5	713	4	US-10-299-976-245
99	37	75.5	713	4	US-10-299-937-245
100	37	75.5	713	4	US-10-193-477-41

ALIGNMENTS

RESULT 1
US-10-145-682A-4
; Sequence 4, Application US/10145682A
; Publication No. US20030027767A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-145-682A-4

Query Match 100.0%; Score 49; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0027;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 2
US-10-221-662-4
; Sequence 4, Application US/10221662
; Publication No. US20030050446A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/221,662
; CURRENT FILING DATE: 2002-09-16
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; FEATURE:
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-221-662-4

Query Match 100.0%; Score 49; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0027;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 3
US-10-267-706-4
; Sequence 4, Application US/10267706
; Publication No. US20030087809A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/267,706
; CURRENT FILING DATE: 2002-10-08
; PRIOR APPLICATION NUMBER: US/10/145,682A
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-267-706-4

Query Match 100.0%; Score 49; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0027;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 4
US-10-772-537-4
; Sequence 4, Application US/10772537
; Publication No. US20040259800A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/772,537
; CURRENT FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
US-10-772-537-4

Query Match 100.0%; Score 49; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0027;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

*Same Invented
May claim*

Current

; SEQ ID NO 4
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-772-537-4

Query Match 100.0%; Score 49; DB 5; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0027;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10
|:|||||

RESULT 5

US-10-145-682A-1
; Sequence 1, Application US/10145682A
; Publication No. US20030027767A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetuin from bovine sera as
; OTHER INFORMATION: described in the specification.
US-10-145-682A-1

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10
|:|||||

RESULT 6

US-10-145-682A-5
; Sequence 5, Application US/10145682A
; Publication No. US20030027767A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08

; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 5
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Sheep
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-145-682A-5

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10
|:|||||

RESULT 7

US-10-145-682A-6
; Sequence 6, Application US/10145682A
; Publication No. US20030027767A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-145-682A-6

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10
|:|||||

RESULT 8

US-10-221-662-1
; Sequence 1, Application US/10221662
; Publication No. US2003005046A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/221,662
; CURRENT FILING DATE: 2002-09-16
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136

; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; FEATURE:
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetuin from bovine sera as
; OTHER INFORMATION: described in the specification.
US-10-221-662-1

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|:|||||
Db 1 HTPSGVASVE 10

RESULT 9

US-10-221-662-5
; Sequence 5, Application US/10221662
; Publication No. US20030050446A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: 2-04-1892.
; CURRENT APPLICATION NUMBER: US/10/221,662
; PRIOR FILING DATE: 2002-09-16
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 5
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Sheep
; FEATURE:
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-221-662-5

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|:|||||
Db 1 HTPSGVASVE 10

RESULT 10

US-10-221-662-6
; Sequence 6, Application US/10221662
; Publication No. US20030050446A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation
; FILE REFERENCE: Thereof.

; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/221,662
; PRIOR FILING DATE: 2002-09-16
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; FEATURE:
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-221-662-6

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|:|||||
Db 1 HTPSGVASVE 10

RESULT 11

US-10-267-706-1
; Sequence 1, Application US/10267706
; Publication No. US20030087809A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method
; TITLE OF INVENTION: of Preparation
; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/267,706
; PRIOR FILING DATE: 2002-10-08
; PRIOR APPLICATION NUMBER: US/10/145,682A
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetuin from
; OTHER INFORMATION: bovine sera as
; OTHER INFORMATION: described in the specification.
US-10-267-706-1

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|:|||||
Db 1 HTPSGVASVE 10

RESULT 12

US-10-267-706-5
; Sequence 5, Application US/10267706
; Publication No. US20030087809A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method
; TITLE OF INVENTION: of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/267,706
; CURRENT FILING DATE: 2002-10-08
; PRIOR APPLICATION NUMBER: US/10/145,682A
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 5
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Sheep
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-267-706-5

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|||||
Db 1 HTFSGVASVE 10

RESULT 13

US-10-267-706-6
; Sequence 6, Application US/10267706
; Publication No. US20030087809A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method
; TITLE OF INVENTION: of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/267,706
; CURRENT FILING DATE: 2002-10-08
; PRIOR APPLICATION NUMBER: US/10/145,682A
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-267-706-6

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|||||
Db 1 HTFSGVASVE 10

Query Match 93.9%; Score 46; DB 4; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|||||
Db 1 HTFSGVASVE 10

RESULT 14

US-10-772-537-1
; Sequence 1, Application US/10772537
; Publication No. US20040259800A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Prepa
; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/772,537
; CURRENT FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetuin from bovine ser
US-10-772-537-1

Query Match 93.9%; Score 46; DB 5; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|||||
Db 1 HTFSGVASVE 10

RESULT 15

US-10-772-537-5
; Sequence 5, Application US/10772537
; Publication No. US20040259800A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Prepa
; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/772,537
; CURRENT FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
US-10-772-537-5

Query Match 93.9%; Score 46; DB 5; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|||||
Db 1 HTFSGVASVE 10

```
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 5
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Sheep
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-772-537-5
```

```
Query Match          93.9%; Score 46; DB 5; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 HSPFSGVASVE 10
Db 1 HTFSGVASVE 10
```

RESULT 16

```
US-10-772-537-6
; Sequence 6, Application US/10772537
; Publication No. US20040259800A1
; GENERAL INFORMATION:
```

```
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation.
; FILE REFERENCE: 2-04-1892
```

```
; CURRENT APPLICATION NUMBER: US/10/772,537
; PRIOR FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
```

```
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-772-537-6
```

```
Query Match          93.9%; Score 46; DB 5; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 HSPFSGVASVE 10
Db 1 HTFSGVASVE 10
```

RESULT 17

```
US-10-415-288-7
; Sequence 7, Application US/10415288
; Publication No. US20040198648A1
; GENERAL INFORMATION:
```

```
; APPLICANT: GRUNBERGER, George
; APPLICANT: MATTHEWS, Suresh T.
; APPLICANT: KAI-LIN, Catherine Jen
; APPLICANT: GOUSTIN, Anton, Scott
; APPLICANT: SRINIVAS, Pothur, R.
; TITLE OF INVENTION: INHIBITION OF ALPHA-2 HS GLYCOPROTEIN (AHSG/FETUIN)
; FILE REFERENCE: 38368-187769
; CURRENT APPLICATION NUMBER: US/10/415,288
; CURRENT FILING DATE: 2003-04-28
```

```
; PRIOR APPLICATION NUMBER: PCT/US01/42832
; PRIOR FILING DATE: 2001-10-29
; PRIOR APPLICATION NUMBER: US 60/243,442
; PRIOR FILING DATE: 2000-10-27
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 359
; TYPE: PRT
; ORGANISM: Bos taurus
US-10-415-288-7
```

```
Query Match          93.9%; Score 46; DB 4; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.62;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 HSPFSGVASVE 10
Db 313 HTFSGVASVE 322
```

RESULT 18

```
US-10-145-682A-7
; Sequence 7, Application US/10145682A
; Publication No. US20030027767A1
; GENERAL INFORMATION:
```

```
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation.
; FILE REFERENCE: 2-04-1892
```

```
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 7
```

```
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Mouse
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-145-682A-7
```

```
Query Match          77.6%; Score 38; DB 4; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.52;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

```
QY 1 HSPFSGVASVE 10
Db 1 HAFSPVASVE 10
```

RESULT 19

```
US-10-221-662-7
; Sequence 7, Application US/10221662
; Publication No. US20030050446A1
; GENERAL INFORMATION:
```

```
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/221,662
; CURRENT FILING DATE: 2002-09-16
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
```

; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 7
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Mouse
; FEATURE:
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-221-662-7

Query Match 77.6%; Score 38; DB 4; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.52;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|:| |
Db 1 HAFSPVASVE 10

RESULT 20
US-10-267-706-7
; Sequence 7, Application US/10267706
; Publication No. US20030087809A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method
; TITLE OF INVENTION: of Preparation
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/267,706
; CURRENT FILING DATE: 2002-10-08
; PRIOR APPLICATION NUMBER: US/10/145,682A
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 7
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Mouse
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-267-706-7

Query Match 77.6%; Score 38; DB 4; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.52;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|:| |
Db 1 HAFSPVASVE 10

RESULT 21
US-10-772-537-7
; Sequence 7, Application US/10772537
; Publication No. US20040259800A1
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation

; TITLE OF INVENTION: Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/772,537
; CURRENT FILING DATE: 2004-02-05
; PRIOR APPLICATION NUMBER: 10/145,682
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 7
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Mouse
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.
US-10-772-537-7

Query Match 77.6%; Score 38; DB 5; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.52;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|:| |
Db 1 HAFSPVASVE 10

RESULT 22
US-10-415-288-5
; Sequence 5, Application US/10415288
; Publication No. US20040198648A1
; GENERAL INFORMATION:
; APPLICANT: GRUNBERGER, George
; APPLICANT: MATTHEWS, Suresh T.
; APPLICANT: KAI-LIN, Catherine Jen
; APPLICANT: GOUSTIN, Anton, Scott
; APPLICANT: SRINIVAS, Pothur. R.
; TITLE OF INVENTION: INHIBITION OF ALPHA-2 HS GLYCOPROTEIN (AHSG/FETUIN)
; TITLE OF INVENTION: IN OBESITY AND INSULIN CONTROL OF GLUCOSE HOMEOSTASIS
; FILE REFERENCE: 38368-187769
; CURRENT APPLICATION NUMBER: US/10/415,288
; CURRENT FILING DATE: 2003-04-28
; PRIOR APPLICATION NUMBER: PCT/US01/42832
; PRIOR FILING DATE: 2001-10-29
; PRIOR APPLICATION NUMBER: US 60/243,442
; PRIOR FILING DATE: 2000-10-27
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 346
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-415-288-5

Query Match 77.6%; Score 38; DB 4; Length 346;
Best Local Similarity 80.0%; Pred. No. 27;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|:|:| |
Db 303 HAFSPVASVE 312

RESULT 23
US-10-316-253-84
; Sequence 84, Application US/10316253
; Publication No. US20030162706A1

GENERAL INFORMATION:
; APPLICANT: The Procter & Gamble Company
; APPLICANT: Peters, Kevin
; APPLICANT: Thompson, Larry
; APPLICANT: Wang, Feng
; APPLICANT: Greis, Kenneth
; TITLE OF INVENTION: Angiogenesis Modulating Proteins
; FILE REFERENCE: 8865M
; CURRENT APPLICATION NUMBER: US/10/316,253
; CURRENT FILING DATE: 2002-12-10
; PRIOR APPLICATION NUMBER: US 60/355,295
; PRIOR FILING DATE: 2002-02-08
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 84
; LENGTH: 352
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-316-253-84

Query Match 77.6%; Score 38; DB 4; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 306 HAFSPVASVE 315
|:|||||

RESULT 24
US-10-316-253-86
; Sequence 86, Application US/10316253
; Publication No. US20030162706A1
; GENERAL INFORMATION:
; APPLICANT: The Procter & Gamble Company
; APPLICANT: Peters, Kevin
; APPLICANT: Thompson, Larry
; APPLICANT: Wang, Feng
; APPLICANT: Greis, Kenneth
; TITLE OF INVENTION: Angiogenesis Modulating Proteins
; FILE REFERENCE: 8865M
; CURRENT APPLICATION NUMBER: US/10/316,253
; CURRENT FILING DATE: 2002-12-10
; PRIOR APPLICATION NUMBER: US 60/355,295
; PRIOR FILING DATE: 2002-02-08
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 86
; LENGTH: 352
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-316-253-86

Query Match 77.6%; Score 38; DB 4; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 306 HAFSPVASVE 315
|:|||||

RESULT 25
US-10-415-288-6
; Sequence 6, Application US/10415288
; Publication No. US20040198648A1
; GENERAL INFORMATION:
; APPLICANT: GRUNBERGER, George
; APPLICANT: MATTHEWS, Suresh T.
; APPLICANT: KAI-LIN, Catherine Jen
; APPLICANT: GOUSTIN, Anton, Scott
; APPLICANT: SRINIVAS, Potthur, R.
; TITLE OF INVENTION: INHIBITION OF ALPHA-2 HS GLYCOPROTEIN (AHSG/FETUIN)

; TITLE OF INVENTION: IN OBESITY AND INSULIN CONTROL OF GLUCOSE HOMEOSTASIS
; FILE REFERENCE: 38368-187769
; CURRENT APPLICATION NUMBER: US/10/415,288
; CURRENT FILING DATE: 2003-04-28
; PRIOR APPLICATION NUMBER: PCT/US01/42832
; PRIOR FILING DATE: 2001-10-29
; PRIOR APPLICATION NUMBER: US 60/243,442
; PRIOR FILING DATE: 2000-10-27
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 352
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-415-288-6

Query Match 77.6%; Score 38; DB 4; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 306 HAFSPVASVE 315
|:|||||

RESULT 26
US-09-909-320-245
; Sequence 245, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Baton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kijavini, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,320
; CURRENT FILING DATE: 2002-01-04
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090

```

; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-909-320-245

```

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSFSGVASVE 10
Db 135 HSFAGLASLQ 144

```

RESULT 27

```

US-09-909-088B-245
; Sequence 245, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,088B
; CURRENT FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414

```

```

; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-909-088B-245

```

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSFSGVASVE 10
Db 135 HSFAGLASLQ 144

```

RESULT 28

```

US-09-905-291A-245
; Sequence 245, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James

```

```

; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/905,291A
; PRIOR FILING DATE: 2001-07-12
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-905-291A-245

```

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 1 HSFSGVASVE 10
DB 135 HSFAGLASLQ 144

```

```

RESULT 29
US-09-902-853-245
; Sequence 245, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen

```

```

; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,853
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US/09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-902-853-245

```

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 1 HSFSGVASVE 10
DB 135 HSFAGLASLQ 144

```

RESULT 30

US-09-907-824-245
; Sequence 245, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.

; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

; FILE OF INVENTION: Acids Encoding the Same

; FILE REFERENCE: 10466-14

; CURRENT APPLICATION NUMBER: US/09/907,824

; PRIOR FILING DATE: 2001-07-17

; PRIOR APPLICATION NUMBER: 09/685,350

; PRIOR FILING DATE: 2000-09-18

; PRIOR APPLICATION NUMBER: PCT/US00/04414

; PRIOR FILING DATE: 2000-02-22

; PRIOR APPLICATION NUMBER: US 60/143,048

; PRIOR FILING DATE: 1999-07-07

; PRIOR APPLICATION NUMBER: US 60/145,698

; PRIOR FILING DATE: 1999-07-26

; PRIOR APPLICATION NUMBER: US 60/146,222

; PRIOR FILING DATE: 1999-07-28

; PRIOR APPLICATION NUMBER: PCT/US99/20594

; PRIOR FILING DATE: 1999-09-08

; PRIOR APPLICATION NUMBER: PCT/US99/20944

; PRIOR FILING DATE: 1999-09-13

; PRIOR APPLICATION NUMBER: PCT/US99/21090

; PRIOR FILING DATE: 1999-09-15

; PRIOR APPLICATION NUMBER: PCT/US99/21547

; PRIOR FILING DATE: 1999-09-15

; PRIOR APPLICATION NUMBER: PCT/US99/23089

; PRIOR FILING DATE: 1999-10-05

; PRIOR APPLICATION NUMBER: PCT/US99/28214

; PRIOR FILING DATE: 1999-11-29

; PRIOR APPLICATION NUMBER: PCT/US99/28313

; PRIOR FILING DATE: 1999-11-30

; PRIOR APPLICATION NUMBER: PCT/US99/28564

; PRIOR FILING DATE: 1999-12-02

; PRIOR APPLICATION NUMBER: PCT/US99/28565

; PRIOR FILING DATE: 1999-12-02

; PRIOR APPLICATION NUMBER: PCT/US99/30095

; PRIOR FILING DATE: 1999-12-16

; PRIOR APPLICATION NUMBER: PCT/US99/30911

; PRIOR FILING DATE: 1999-12-20

; PRIOR APPLICATION NUMBER: PCT/US99/30999

; PRIOR FILING DATE: 1999-12-20

; PRIOR APPLICATION NUMBER: PCT/US00/00219

; PRIOR FILING DATE: 2000-01-05

; NUMBER OF SEQ ID NOS: 423

; SEQ ID NO 245

; LENGTH: 713

; LENGTH: 713

; TYPE: PRT

; ORGANISM: Homo Sapien

US-09-907-824-245

Query Match

75.5%; Score 37; DB 3; Length 713;

Best Local Similarity 60.0%; Pred. No. 1e+02;

Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Oy 1 HSPSGVAVSE 10

||||:|::|::

Db 135 HSPAGLASLQ 144

RESULT 31

US-09-907-841-245

; Sequence 245, Application US/09907841

; Publication No. US20020198366A1

; GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.

; APPLICANT: Ashkenazi, Avi

; APPLICANT: Botstein, David

; APPLICANT: Desnoyers, Luc

; APPLICANT: Eaton, Dan L.

; APPLICANT: Ferrara, Napoleone

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Fong, Sherman

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerber, Hanspeter

; APPLICANT: Gerritsen, Mary E.

; APPLICANT: Goddard, A.

; APPLICANT: Godowski, Paul J.

; APPLICANT: Grimaldi, Christopher J.

; APPLICANT: Gurney, Austin L.

; APPLICANT: Hillan, Kenneth, J.

; APPLICANT: Kljavin, Ivar J.

; APPLICANT: Mather, Jennie P.

; APPLICANT: Pan, James

; APPLICANT: Paoni, Nicholas F.

; APPLICANT: Roy, Margaret Ann

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Williams, P. Mickey

; APPLICANT: Wood, William, I.

; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

; FILE OF INVENTION: Acids Encoding the Same

; FILE REFERENCE: 10466-14

; CURRENT APPLICATION NUMBER: US/09/907,841

; PRIOR FILING DATE: 2001-11-20

; PRIOR APPLICATION NUMBER: PCT/US00/04414

; PRIOR FILING DATE: 2000-02-22

; PRIOR APPLICATION NUMBER: US 60/143,048

; PRIOR FILING DATE: 1999-07-07

; PRIOR APPLICATION NUMBER: US 60/145,698

; PRIOR FILING DATE: 1999-07-26

; PRIOR APPLICATION NUMBER: US 60/146,222

; PRIOR FILING DATE: 1999-07-28

; PRIOR APPLICATION NUMBER: PCT/US99/20594

; PRIOR FILING DATE: 1999-09-08

; PRIOR APPLICATION NUMBER: PCT/US99/20944

; PRIOR FILING DATE: 1999-09-13

; PRIOR APPLICATION NUMBER: PCT/US99/21090

; PRIOR FILING DATE: 1999-09-15

; PRIOR APPLICATION NUMBER: PCT/US99/21547

; PRIOR FILING DATE: 1999-09-15

; PRIOR APPLICATION NUMBER: PCT/US99/23089

; PRIOR FILING DATE: 1999-10-05

; PRIOR APPLICATION NUMBER: PCT/US99/28214

; PRIOR FILING DATE: 1999-11-29

; NUMBER OF SEQ ID NOS: 423

; Remaining Prior Application data removed - See File Wrapper or PALM.

; SEQ ID NO 245

; LENGTH: 713

TYPE: PRT
ORGANISM: Homo Sapien
US-09-907-841-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
Db 135 HSFAGLASLQ 144

RESULT 32

US-09-904-011-245
Sequence 245, Application US/09904011
Publication No. US20030003530A1

GENERAL INFORMATION:

APPLICANT: Genentech, Inc.
APPLICANT: Ashkenazi, Avi
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Filvaroff, Ellen
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, A.
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth, J.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Mather, Jennie P.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas P.
APPLICANT: Roy, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William, I.
TITLE OF INVENTION: Secrested and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: 10466-14
CURRENT APPLICATION NUMBER: US/09/904,011
CURRENT FILING DATE: 2001-07-11
PRIOR APPLICATION NUMBER: 09/665,350
PRIOR FILING DATE: 2000-09-18
PRIOR APPLICATION NUMBER: PCT/US00/04414
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: US 60/143,048
PRIOR FILING DATE: 1999-07-07
PRIOR APPLICATION NUMBER: US 60/145,698
PRIOR FILING DATE: 1999-07-26
PRIOR APPLICATION NUMBER: US 60/146,222
PRIOR FILING DATE: 1999-07-28
PRIOR APPLICATION NUMBER: PCT/US99/20594
PRIOR FILING DATE: 1999-09-08
PRIOR APPLICATION NUMBER: PCT/US99/20944
PRIOR FILING DATE: 1999-09-13
PRIOR APPLICATION NUMBER: PCT/US99/21090
PRIOR FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: PCT/US99/21547
PRIOR FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: PCT/US99/23089
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: PCT/US99/28214
PRIOR FILING DATE: 1999-11-29
PRIOR APPLICATION NUMBER: PCT/US99/28313
PRIOR FILING DATE: 1999-11-30
PRIOR APPLICATION NUMBER: PCT/US99/28564

PRIOR FILING DATE: 1999-12-02
PRIOR APPLICATION NUMBER: PCT/US99/28565
PRIOR FILING DATE: 1999-12-02
PRIOR APPLICATION NUMBER: PCT/US99/30095
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: PCT/US99/30911
PRIOR FILING DATE: 1999-12-20
PRIOR APPLICATION NUMBER: PCT/US99/30999
PRIOR FILING DATE: 1999-12-20
PRIOR APPLICATION NUMBER: PCT/US00/00219
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 423
SEQ ID NO 245
LENGTH: 713
TYPE: PRT
ORGANISM: Homo Sapien
US-09-904-011-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSPSGVASVE 10
Db 135 HSFAGLASLQ 144

RESULT 33

US-09-903-640-245
Sequence 245, Application US/09903640
Publication No. US20030017463A1

GENERAL INFORMATION:

APPLICANT: Genentech, Inc.
APPLICANT: Ashkenazi, Avi
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Filvaroff, Ellen
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, A.
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth, J.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Mather, Jennie P.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas P.
APPLICANT: Roy, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William, I.
TITLE OF INVENTION: Secrested and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: 10466-14
CURRENT APPLICATION NUMBER: US/09/903,640
CURRENT FILING DATE: 2001-07-11
PRIOR APPLICATION NUMBER: 09/665,350
PRIOR FILING DATE: 2000-09-18
NUMBER OF SEQ ID NOS: 423
SEQ ID NO 245
LENGTH: 713
TYPE: PRT
ORGANISM: Homo Sapien
US-09-903-640-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;

```
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
   |||:|:|:|:
Db 135 HSPAGLASLQ 144

RESULT 34
US-09-908-093-245
; Sequence 245, Application US/09908093
; Publication No. US20030017498A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/908,093
; PRIOR FILING DATE: 2001-07-17
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
   |||:|:|:|:
Db 135 HSPAGLASLQ 144

RESULT 35
US-09-906-742-245
; Sequence 245, Application US/09906742
; Publication No. US20030023054A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,742
; PRIOR FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
```

; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-742-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|||:|:|:|:
Db 135 HSFAGLASLQ 144

RESULT 36

US-09-906-838-245
; Sequence 245, Application US/09906838
; Publication No. US20030027143A1
; GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Goddard, A.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secretd and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,838
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414

; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-838-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|||:|:|:|:
Db 135 HSFAGLASLQ 144

RESULT 37

US-09-907-613-245
; Sequence 245, Application US/09907613
; Publication No. US20030027145A1
; GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James

```

; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,613
; PRIOR FILING DATE: 2001-07-17
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-907-613-245

```

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSPSGVASVE 10
Db 135 HSPAGLASLQ 144

```

```

RESULT 38
US-09-907-942-245
; Sequence 245, Application US/09907942
; Publication No. US20030027146A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen

```

```

; APPLICANT: Pong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kijavini, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann.
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,942
; PRIOR FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-907-942-245

```

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

Qy 1 HSPSGVASVE 10
Db 135 HSPAGLASLQ 144

```

```
RESULT 39
US-09-904-859-245
; Sequence 245, Application US/09904859
; Publication No. US20030036060A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, David
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secured and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/904,859
; CURRENT FILING DATE: 2001-07-12
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245

; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-904-859-245
Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
DB 135 HSFAGLASLQ 144

RESULT 40
US-09-909-204-245
; Sequence 245, Application US/09909204
; Publication No. US20030036061A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, David
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secured and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,204
; CURRENT FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
```

; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-909-204-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. le+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|||:|:|:
Db 135 HSFAGLASLQ 144

RESULT 41

US-09-904-820-245
; Sequence 245, Application US/09904820
; Publication No. US20030036094A1
; GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/904,820
; CURRENT FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08

; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-904-820-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. le+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
|||:|:|:
Db 135 HSFAGLASLQ 144

RESULT 42

US-09-904-786-245
; Sequence 245, Application US/09904786
; Publication No. US20030039969A1
; GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14

; CURRENT APPLICATION NUMBER: US/09/904,786
; CURRENT FILING DATE: 2001-07-12
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-904-786-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
DB 135 HSFAGLASLQ 144

RESULT 43

US-09-906-646-245
; Sequence 245, Application US/09906646
; Publication No. US20030039971A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,646
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05

; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-646-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
DB 135 HSFAGLASLQ 144

RESULT 44

US-09-906-700-245
; Sequence 245, Application US/09906700
; Publication No. US20030039972A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,700
; CURRENT FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26

APPLICANT: Wood, William, I.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
FILE REFERENCE: 10466-14
CURRENT APPLICATION NUMBER: US/09/903,786
PRIOR FILING DATE: 2001-07-11
PRIOR APPLICATION NUMBER: 09/665,350
PRIOR FILING DATE: 2000-09-18
PRIOR APPLICATION NUMBER: PCT/US00/04414
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: US 60/143,048
PRIOR FILING DATE: 1999-07-07
PRIOR APPLICATION NUMBER: US 60/145,698
PRIOR FILING DATE: 1999-07-26
PRIOR APPLICATION NUMBER: US 60/146,222
PRIOR FILING DATE: 1999-07-28
PRIOR APPLICATION NUMBER: PCT/US99/20594
PRIOR FILING DATE: 1999-09-08
PRIOR APPLICATION NUMBER: PCT/US99/20944
PRIOR FILING DATE: 1999-09-13
PRIOR APPLICATION NUMBER: PCT/US99/21090
PRIOR FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: PCT/US99/21547
PRIOR FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: PCT/US99/23089
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: PCT/US99/28214
PRIOR FILING DATE: 1999-11-29
PRIOR APPLICATION NUMBER: PCT/US99/28313
PRIOR FILING DATE: 1999-11-30
PRIOR APPLICATION NUMBER: PCT/US99/28564
PRIOR FILING DATE: 1999-12-02
PRIOR APPLICATION NUMBER: PCT/US99/28565
PRIOR FILING DATE: 1999-12-02
PRIOR APPLICATION NUMBER: PCT/US99/30095
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: PCT/US99/30911
PRIOR FILING DATE: 1999-12-20
PRIOR APPLICATION NUMBER: PCT/US99/30999
PRIOR FILING DATE: 1999-12-20
PRIOR APPLICATION NUMBER: PCT/US00/00219
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 423
SEQ ID NO 245
LENGTH: 713
TYPE: PRT
ORGANISM: Homo Sapien
US-09-906-700-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 135 HSPAGLASLQ 144

RESULT 45

US-09-903-786-245
Sequence 245, Application US/09903786
Publication No. US20030044793A1
GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
APPLICANT: Ashkenazi, Avi
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Filvaroff, Ellen
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, A.
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth, J.
APPLICANT: Kijavlin, Ivar J.
APPLICANT: Mather, Jennie P.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
APPLICANT: Roy, Margaret Ann
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Williams, P. Mickey

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
Db 135 HSPAGLASLQ 144

RESULT 46

US-09-902-903-245
Sequence 245, Application US/09902903
Publication No. US20030044839A1
GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
APPLICANT: Ashkenazi, Avi
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Filvaroff, Ellen
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerber, Hanspeter


```
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,903
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-902-903-245

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Oy 1 HSPFGVAVSE 10
   |||:|:|:|:|
Db 135 HSPFAGLASLQ 144

RESULT 47
US-09-903-749A-245
; Sequence 245, Application US/09903749A
```

```
; Publication No. US20030045693A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi.
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/903,749A
; PRIOR FILING DATE: 2001-07-11
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-903-749A-245
```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels

Qy 1 HPSGVSVE 10
|||::||::
Db 135 HSFAGLASLO 144

RESULT 48

US-09-904-119-245
; Sequence 245, Application US/09904119
; Publication No. US20030049621A1

GENERAL INFORMATION:

APPLICANT:	Genentech, Inc.
APPLICANT:	Ashkenazi, Avi
APPLICANT:	Botstein, David
APPLICANT:	Desnoyers, Luc
APPLICANT:	Eaton, Dan L.
APPLICANT:	Ferrara, Napoleone
APPLICANT:	Flvaroff, Ellen
APPLICANT:	Fong, Sherman
APPLICANT:	Gao, Wei-Qiang
APPLICANT:	Gerber, Hanspeter
APPLICANT:	Gerritsen, Mary E.
APPLICANT:	Goddard, A.
APPLICANT:	Godowski, Paul J.
APPLICANT:	Grimaldi, Christopher J.
APPLICANT:	Gurney, Austin L.
APPLICANT:	Hillan, Kenneth, J.
APPLICANT:	Kjavin, Ivar J.
APPLICANT:	Mather, Jennie P.
APPLICANT:	Pan, James
APPLICANT:	Paoni, Nicholas F.
APPLICANT:	ROY, Margaret Ann
APPLICANT:	Stewart, Timothy A.
APPLICANT:	Tumas, Daniel
APPLICANT:	Williams, P. Mickey
APPLICANT:	Wood, William, I.

```

; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423

```

Query Match 75.5%; Score 37; DB 3; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels

Qy 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSEAGLASLO 144

RESULT 49

US-09-904-956-245
; Sequence 245, Application US/09904956
; Publication No. US20030049622A1

GENERAL INFORMATION:

APPLICANT: Genentech, Inc.	US/09/900-000000
APPLICANT: Ashkenazi, Avi	CURRENT FILING DATE: 2001-07-12
APPLICANT: Botstein, David	PRIOR APPLICATION NUMBER: PCT/US00/000000
APPLICANT: Desnoyers, Luc	PRIOR FILING DATE: 2000-02-22
APPLICANT: Eaton, Dan L.	PRIOR APPLICATION NUMBER: US 60/143,000
APPLICANT: Ferrara, Napoleone	PRIOR FILING DATE: 1999-07-07
APPLICANT: Filvaroff, Ellen	PRIOR APPLICATION NUMBER: US 60/145,000
APPLICANT: Fong, Sherman	PRIOR FILING DATE: 1999-07-26
APPLICANT: Gao, Wei-Qiang	PRIOR APPLICATION NUMBER: US 60/146,000
APPLICANT: Gerber, Hanspeter	PRIOR FILING DATE: 1999-07-28
APPLICANT: Gerritsen, Mary E.	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Goddard, A.	PRIOR FILING DATE: 1999-09-08
APPLICANT: Godowski, Paul J.	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Grimaldi, Christopher J.	PRIOR FILING DATE: 1999-09-13
APPLICANT: Gurney, Austin L.	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Hillan, Kenneth, Jr.	PRIOR FILING DATE: 1999-09-15
APPLICANT: Kijavlin, Ivar J.	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Mather, Jennie P.	PRIOR FILING DATE: 1999-09-15
APPLICANT: Pan, James	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Paoni, Nicholas F.	PRIOR FILING DATE: 1999-09-15
APPLICANT: Roy, Margaret Ann	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Stewart, Timothy A.	PRIOR FILING DATE: 1999-09-15
APPLICANT: Tumas, Daniel	PRIOR APPLICATION NUMBER: PCT/US99/000000
APPLICANT: Williams, P. Mickey	PRIOR FILING DATE: 1999-09-15
APPLICANT: Wood, William, I.	PRIOR APPLICATION NUMBER: PCT/US99/000000
TITLE OF INVENTION: Secreted and Transferred	PRIOR FILING DATE: 1999-09-15
TITLE OF INVENTION: Acids Encoding	PRIOR APPLICATION NUMBER: PCT/US99/000000
FILE REFERENCE: 10466-14	PRIOR FILING DATE: 1999-09-15
CURRENT APPLICATION NUMBER: US/09/900-000000	PRIOR APPLICATION NUMBER: PCT/US00/000000
CURRENT FILING DATE: 2001-07-12	PRIOR FILING DATE: 1999-07-26
PRIOR APPLICATION NUMBER: PCT/US00/000000	PRIOR FILING DATE: 1999-07-28
PRIOR FILING DATE: 2000-02-22	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: US 60/143,000	PRIOR FILING DATE: 1999-09-08
PRIOR FILING DATE: 1999-07-07	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: US 60/145,000	PRIOR FILING DATE: 1999-09-13
PRIOR FILING DATE: 1999-07-26	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: US 60/146,000	PRIOR FILING DATE: 1999-09-15
PRIOR FILING DATE: 1999-07-28	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: PCT/US99/000000	PRIOR FILING DATE: 1999-09-15
PRIOR FILING DATE: 1999-09-08	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: PCT/US99/000000	PRIOR FILING DATE: 1999-09-13
PRIOR FILING DATE: 1999-09-13	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: PCT/US99/000000	PRIOR FILING DATE: 1999-09-15
PRIOR FILING DATE: 1999-09-15	PRIOR APPLICATION NUMBER: PCT/US99/000000
PRIOR APPLICATION NUMBER: PCT/US99/000000	PRIOR FILING DATE: 1999-09-15

```

; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kijavlin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,736
; CURRENT FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414

```

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2006, 17:43:24 ; Search time 47 Seconds
(without alignments)
17.591 Million cell updates/sec

Title: US-10-772-537-4

Perfect score: 49

Sequence: 1 HSPGVSVE 10

Scoring table:

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database :

- 1: /cgn2_6/ptodata/1/iaa/5_COMB.pep.*
- 2: /cgn2_6/ptodata/1/iaa/6_COMB.pep.*
- 3: /cgn2_6/ptodata/1/iaa/H_COMB.pep.*
- 4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep.*
- 5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep.*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	49	100.0	10	2	US-10-145-682A-4
2	49	100.0	361	1	US-08-483-926A-9
3	49	100.0	362	1	US-08-737-045-13
4	46	93.9	10	2	US-10-145-682A-1
5	46	93.9	10	2	US-10-145-682A-5
6	46	93.9	10	2	US-10-145-682A-6
7	46	93.9	359	1	US-08-483-926A-8
8	46	93.9	359	1	US-08-737-045-11
9	46	93.9	359	2	US-08-932-871B-1
10	46	93.9	359	2	US-09-476-919-1
11	46	93.9	359	2	US-08-780-311A-1
12	46	93.9	364	1	US-08-483-926A-10
13	46	93.9	364	1	US-08-737-045-10
14	38	77.6	10	2	US-10-145-682A-7
15	38	77.6	352	1	US-08-483-926A-11
16	38	77.6	352	1	US-08-737-045-12
17	37	75.5	713	2	US-09-907-794A-245
18	37	75.5	713	2	US-09-905-125A-245
19	37	75.5	713	2	US-09-902-775A-245
20	37	75.5	713	2	US-09-906-700-245
21	37	75.5	713	2	US-09-903-603A-245
22	37	75.5	713	2	US-09-904-920A-245
23	37	75.5	713	2	US-09-909-064-245
24	37	75.5	713	2	US-09-905-381A-245
25	37	75.5	713	2	US-09-906-618-245
26	37	75.5	713	2	US-09-906-646-245
27	37	75.5	713	2	US-09-904-462-245

28	75.5	713	2	US-09-902-736A-245	Sequence 245, App
29	75.5	713	2	US-09-906-722A-245	Sequence 245, App
30	75.5	857	2	US-09-949-016-9997	Sequence 9997, App
31	73.5	282	2	US-08-252-991A-21097	Sequence 21097, A
32	71.4	334	2	US-09-248-796A-15329	Sequence 15329, A
33	69.4	724	2	US-09-701-868-11	Sequence 11, Appl
34	69.4	838	2	US-09-701-868-10	Sequence 10, Appl
35	67.3	266	2	US-09-252-991A-21116	Sequence 21116, A
36	67.3	331	1	US-08-907-674-1	Sequence 1, Appl
37	67.3	331	1	US-08-215-087-1	Sequence 1, Appl
38	67.3	331	2	US-09-391-959-1	Sequence 1, Appl
39	67.3	6239	2	US-09-914-286-4	Sequence 4, Appl
40	65.3	205	2	US-09-248-796A-21389	Sequence 21389, A
41	65.3	233	2	US-09-857-612A-4	Sequence 4, Appl
42	65.3	263	2	US-09-489-039A-10735	Sequence 10735, A
43	65.3	434	2	US-08-857-612A-8	Sequence 8, Appl
44	65.3	439	2	US-09-857-612A-12	Sequence 12, Appl
45	65.3	462	2	US-08-801-344-9	Sequence 9, Appl
46	65.3	462	2	US-09-498-599-9	Sequence 9, Appl
47	65.3	463	2	US-09-489-039A-13942	Sequence 13942, A
48	65.3	468	2	US-09-543-681A-4671	Sequence 4671, App
49	65.3	835	2	US-09-701-868-8	Sequence 8, Appl
50	65.3	838	1	US-08-696-944-19	Sequence 19, Appl
51	65.3	1089	2	US-09-949-016-9707	Sequence 9707, App
52	63.3	25	1	US-08-482-142-31	Sequence 31, Appl
53	63.3	25	1	US-08-478-572-31	Sequence 31, Appl
54	63.3	25	1	US-08-484-296-31	Sequence 31, Appl
55	63.3	29	1	US-08-482-142-11	Sequence 11, Appl
56	63.3	29	1	US-08-482-142-29	Sequence 29, Appl
57	63.3	29	1	US-08-482-142-74	Sequence 74, Appl
58	63.3	29	1	US-08-482-142-92	Sequence 92, Appl
59	63.3	29	1	US-08-478-572-11	Sequence 11, Appl
60	63.3	29	1	US-08-478-572-29	Sequence 29, Appl
61	63.3	29	1	US-08-478-572-74	Sequence 74, Appl
62	63.3	29	1	US-08-478-572-92	Sequence 92, Appl
63	63.3	29	2	US-08-484-296-11	Sequence 11, Appl
64	63.3	29	2	US-08-484-296-29	Sequence 29, Appl
65	63.3	29	2	US-08-484-296-74	Sequence 74, Appl
66	63.3	29	2	US-08-484-296-92	Sequence 92, Appl
67	63.3	29	4	PCT-US95-04481-3	Sequence 3, Appl
68	63.3	104	2	US-09-602-787A-644	Sequence 644, App
69	63.3	149	2	US-09-252-991A-18591	Sequence 18591, A
70	63.3	156	2	US-09-270-767-32987	Sequence 32987, A
71	63.3	156	2	US-09-270-767-48204	Sequence 48204, A
72	63.3	222	1	US-07-945-288-11	Sequence 11, Appl
73	63.3	222	1	US-08-462-831-11	Sequence 11, Appl
74	63.3	222	1	US-08-461-809-11	Sequence 11, Appl
75	63.3	222	1	US-08-461-441-11	Sequence 11, Appl
76	63.3	222	2	US-09-543-681A-6751	Sequence 6751, App
77	63.3	222	4	PCT-US93-08518-11	Sequence 11, Appl
78	63.3	230	2	US-09-448-796A-22910	Sequence 22910, A
79	63.3	245	1	US-07-945-288-2	Sequence 2, Appl
80	63.3	245	1	US-08-462-831-2	Sequence 2, Appl
81	63.3	245	1	US-08-461-809-2	Sequence 2, Appl
82	63.3	245	1	US-08-461-441-2	Sequence 2, Appl
83	63.3	245	1	US-08-482-142-2	Sequence 2, Appl
84	63.3	245	1	US-08-478-572-2	Sequence 2, Appl
85	63.3	245	2	US-08-460-040-2	Sequence 2, Appl
86	63.3	245	2	US-08-484-296-2	Sequence 2, Appl
87	63.3	245	4	PCT-US93-08518-2	Sequence 2, Appl
88	63.3	320	1	US-07-945-288-10	Sequence 10, Appl
89	63.3	320	1	US-08-462-831-10	Sequence 10, Appl
90	63.3	320	1	US-08-461-809-10	Sequence 10, Appl
91	63.3	320	1	US-08-461-441-10	Sequence 10, Appl
92	63.3	320	4	PCT-US93-08518-10	Sequence 10, Appl
93	63.3	321	1	US-07-945-288-6	Sequence 6, Appl
94	63.3	321	1	US-08-462-831-6	Sequence 6, Appl
95	63.3	321	1	US-08-461-809-6	Sequence 6, Appl
96	63.3	321	1	US-08-461-441-6	Sequence 6, Appl
97	63.3	321	1	US-08-482-142-6	Sequence 6, Appl
98	63.3	321	1	US-08-478-572-6	Sequence 6, Appl
99	63.3	321	2	US-08-484-296-6	Sequence 6, Appl
100	63.3	321	4	PCT-US93-08518-6	Sequence 6, Appl

ALIGNMENTS

RESULT 1
US-10-145-682A-4
; Sequence 4, Application US/10145682A
; Patent No. 6720311
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1997-12-18
; PRIOR APPLICATION NUMBER: 08/993,432
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 4
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Pig
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetus.

*same inventer
not claimed*

US-10-145-682A-4

Query Match 100.0%; Score 49; DB 2; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00094;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HSFSGVASVE 10

RESULT 2
US-08-483-926A-9
; Sequence 9, Application US/08483926A
; Patent No. 5821227
; GENERAL INFORMATION:
; APPLICANT: Dennis, James W.
; TITLE OF INVENTION: MODULATORS OF CYTOKINES OF THE TGF BETA
; TITLE OF INVENTION: SUPERFAMILY AND METHODS FOR ASSAYING FOR SAME
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BERESKIN & PARR
; STREET: 40 King Street West
; CITY: Toronto
; STATE: Ontario
; COUNTRY: Canada
; ZIP: M5H 3Y2
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/483,926A
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Kurdydyk, Linda M.
; REGISTRATION NUMBER: 34,971
; REFERENCE/DOCKET NUMBER: 3153-155
; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (416) 364-7311
; TELEFAX: (416) 361-1398
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 361 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: Pig
US-08-483-926A-9

Query Match 100.0%; Score 49; DB 1; Length 361;
Best Local Similarity 100.0%; Pred. No. 0.051;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 310 HSFSGVASVE 319

RESULT 3
US-08-737-045-13
; Sequence 13, Application US/08737045A
; Patent No. 5981483
; GENERAL INFORMATION:
; APPLICANT: Dennis, James W.
; APPLICANT: Denettrou, Michael
; APPLICANT: Mount Sinai Hospital Corporation
; TITLE OF INVENTION: COMPOSITIONS COMPRISING MODULATORS OF CYTOKINES OF THE
; TITLE OF INVENTION: TGFb SUPERFAMILY AND A METHOD OF TREATMENT WITH SUCH A
; TITLE OF INVENTION: COMPOSITION (AS AMENDED)
; FILE REFERENCE: 7933.94USWO
; CURRENT APPLICATION NUMBER: US/08/737,045A
; CURRENT FILING DATE: 1997-03-20
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 362
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism:Pig
US-08-737-045-13

Query Match 100.0%; Score 49; DB 1; Length 362;
Best Local Similarity 100.0%; Pred. No. 0.051;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 311 HSFSGVASVE 320

RESULT 4
US-10-145-682A-1
; Sequence 1, Application US/10145682A
; Patent No. 6720311
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation Thereof.
; FILE REFERENCE: 2-04-1892
; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432

; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 1
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Bovine
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from treatment of fetuin from bovine sera as described in the specification.
US-10-145-682A-1

Query Match 93.9%; Score 46; DB 2; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.0039;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

RESULT 5

US-10-145-682A-5
; Sequence 5, Application US/10145682A
; Patent No. 6720311
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation Thereof.
; FILE REFERENCE: 2-04-1892

; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136
; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.

SEQ ID NO 5
LENGTH: 10
TYPE: PRT

ORGANISM: Sheep
LOCATION: 300..309
OTHER INFORMATION: Polypeptide fragment from fetuin.

US-10-145-682A-5

Query Match 93.9%; Score 46; DB 2; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.0039;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

RESULT 6

US-10-145-682A-6
; Sequence 6, Application US/10145682A
; Patent No. 6720311
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Preparation Thereof.
; FILE REFERENCE: 2-04-1892

; CURRENT APPLICATION NUMBER: US/10/145,682A
; CURRENT FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 09/902,208
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: 09/414,136

; PRIOR FILING DATE: 1999-10-07
; PRIOR APPLICATION NUMBER: 09/149,878
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: 08/993,432
; PRIOR FILING DATE: 1997-12-18
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Microsoft Word 2001.
; SEQ ID NO 6
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Rat
; LOCATION: 300..309
; OTHER INFORMATION: Polypeptide fragment from fetuin.

US-10-145-682A-6

Query Match 93.9%; Score 46; DB 2; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.0039;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

RESULT 7

US-08-483-926A-8
; Sequence 8, Application US/08483926A
; Patent No. 5821227
; GENERAL INFORMATION:
; APPLICANT: Dennis, James W.

; TITLE OF INVENTION: MODULATORS OF CYTOKINES OF THE TGF BETA
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BERESKIN & PARR
; STREET: 40 King Street West
; CITY: Toronto
; STATE: Ontario
; COUNTRY: Canada
; ZIP: M5H 3Y2

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,926A
FILING DATE: 07-JUN-1995
CLASSIFICATION: 514

ATTORNEY/AGENT INFORMATION:
NAME: Kurdydyk, Linda M.
REGISTRATION NUMBER: 34,971
REFERENCE/DOCKET NUMBER: 3153-155
TELEPHONE: (416) 364-7311
TELEFAX: (416) 364-7311

INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 359 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: Peptide
ORIGINAL SOURCE:
ORGANISM: Bovine
US-08-483-926A-8

Query Match 93.9%; Score 46; DB 1; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 1 HTFSGVASVE 10

```

Db      313 HTFSGVASVE 322

RESULT 8
US-08-737-045-11
; Sequence 11, Application US/08737045A
; Patent No. 5981483
; GENERAL INFORMATION:
; APPLICANT: Dennis, James W.
; APPLICANT: Denetrou, Michael
; TITLE OF INVENTION: COMPOSITIONS COMPRISING MODULATORS OF CYTOKINES OF THE
; TITLE OF INVENTION: TGF $\beta$  SUPERFAMILY AND A METHOD OF TREATMENT WITH SUCH A
; TITLE OF INVENTION: TGF $\beta$  SUPERFAMILY AND A METHOD OF TREATMENT WITH SUCH A
; FILE REFERENCE: 7933.94USWO
; CURRENT APPLICATION NUMBER: US/08/737,045A
; CURRENT FILING DATE: 1997-03-20
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
; LENGTH: 359
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Bovine
US-08-737-045-11

Query Match      93.9%; Score 46; DB 1; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 HSFSGVASVE 10
      |:|||||
Db      313 HTFSGVASVE 322

RESULT 9
US-08-932-871B-1
; Sequence 1, Application US/08932871B
; Patent No. 6011005
; GENERAL INFORMATION:
; APPLICANT: Tracey, Kevin et al.
; TITLE OF INVENTION: Prevention of Pregnancy Miscarriages
; NUMBER OF SEQUENCES: 2
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: DAVIS WRIGHT TREMAINE LLP
; STREET: 2600 Century Square, 1501 Fourth Avenue
; CITY: Seattle
; STATE: Washington
; COUNTRY: USA
; ZIP: 98101-1688
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Pentium PC
; OPERATING SYSTEM: Windows 95
; SOFTWARE: Word
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/932,871B
; FILING DATE: 18 September 1997
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Oster, Jeffrey B.
; REGISTRATION NUMBER: 32,585
; REFERENCE/DOCKET NUMBER: 0602
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 628-7711
; TELEFAX: (206) 628-7699
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 359 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: no
; ANTI-SENSE: no
; FRAGMENT TYPE: N-terminal fragment
; ORIGINAL SOURCE:
; ORGANISM: human
US-08-932-871B-1

Query Match      93.9%; Score 46; DB 2; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 HSFSGVASVE 10
      |:|||||
Db      313 HTFSGVASVE 322

RESULT 11
US-08-780-311A-1

```

```

; MOLECULE TYPE: protein
; HYPOTHETICAL: no
; ANTI-SENSE: no
; FRAGMENT TYPE: N-terminal fragment
; ORIGINAL SOURCE:
; ORGANISM: human
US-08-932-871B-1

Query Match      93.9%; Score 46; DB 2; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 HSFSGVASVE 10
      |:|||||
Db      313 HTFSGVASVE 322

RESULT 10
US-09-476-919-1
; Sequence 1, Application US/09476919
; Patent No. 6117837
; GENERAL INFORMATION:
; APPLICANT: Tracey, Kevin et al.
; TITLE OF INVENTION: Prevention of Pregnancy Miscarriages
; NUMBER OF SEQUENCES: 2
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: DAVIS WRIGHT TREMAINE LLP
; STREET: 2600 Century Square, 1501 Fourth Avenue
; CITY: Seattle
; STATE: Washington
; COUNTRY: USA
; ZIP: 98101-1688
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Pentium PC
; OPERATING SYSTEM: Windows 95
; SOFTWARE: Word
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/476,919
; FILING DATE: 18 September 1997
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Oster, Jeffrey B.
; REGISTRATION NUMBER: 32,585
; REFERENCE/DOCKET NUMBER: 0602
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 628-7711
; TELEFAX: (206) 628-7699
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 359 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: no
; ANTI-SENSE: no
; FRAGMENT TYPE: N-terminal fragment
; ORIGINAL SOURCE:
; ORGANISM: human
US-09-476-919-1

Query Match      93.9%; Score 46; DB 2; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 HSFSGVASVE 10
      |:|||||
Db      313 HTFSGVASVE 322

RESULT 11
US-08-780-311A-1

```

; Sequence 1, Application US/08780311A
; Patent No. 6319894
; GENERAL INFORMATION:
; APPLICANT: Tracey, Kevin et al.
; TITLE OF INVENTION: Complexes and Combinations of Fetuin
; TITLE OF INVENTION: with Therapeutic Agents
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: DAVIS WRIGHT TREMAINE LLP
; STREET: 2600 Century Square, 1101 Fourth Avenue
; CITY: Seattle
; STATE: Washington
; COUNTRY: USA
; ZIP: 98101-1688
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: Pentium PC
; OPERATING SYSTEM: Windows 95
; SOFTWARE: Word
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/780,311A
; FILING DATE: January 8, 1997
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Oster, Jeffrey B.
; REGISTRATION NUMBER: 32,585
; REFERENCE/DOCKET NUMBER: 0106
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 628-7711
; TELEFAX: (206) 628-7699
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 359 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: no
; ANTI-SENSE: no
; FRAGMENT TYPE: N-terminal fragment
; ORIGINAL SOURCE:
; ORGANISM: human
; US-08-780-311A-1

Query Match 93.9%; Score 46; DB 2; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|:|||||
Db 313 HTFSGVASVE 322

RESULT 12

; US-08-483-926A-10
; Sequence 10, Application US/08483926A
; Patent No. 5821227
; GENERAL INFORMATION:
; APPLICANT: Dennis, James W.
; TITLE OF INVENTION: MODULATORS OF CYTOKINES OF THE TGF BETA
; TITLE OF INVENTION: SUPERFAMILY AND METHODS FOR ASSAYING FOR SAME
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BERESKIN & PARR
; STREET: 40 King Street West
; CITY: Toronto
; STATE: Ontario
; COUNTRY: Canada
; ZIP: M5H 3Y2
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/483,926A
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Kurdydk, Linda M.
; REGISTRATION NUMBER: 34,971
; REFERENCE/DOCKET NUMBER: 3153-155
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (416) 364-7311
; TELEFAX: (416) 361-1398
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 364 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: Sheep
; US-08-483-926A-10

Query Match 93.9%; Score 46; DB 1; Length 364;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|:|||||
Db 318 HTFSGVASVE 327

RESULT 13

; US-08-737-045-10
; Sequence 10, Application US/08737045A
; Patent No. 5981483
; GENERAL INFORMATION:
; APPLICANT: Dennis, James W.
; APPLICANT: Denetziou, Michael
; APPLICANT: Mount Sinai Hospital Corporation
; TITLE OF INVENTION: COMPOSITIONS COMPRISING MODULATORS OF CYTOKINES OF THE
; TITLE OF INVENTION: TGF β SUPERFAMILY AND A METHOD OF TREATMENT WITH SUCH A
; TITLE OF INVENTION: COMPOSITION (AS AMENDED)
; FILE REFERENCE: 7933, 94USWO
; CURRENT APPLICATION NUMBER: US/08/737,045A
; CURRENT FILING DATE: 1997-03-20
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LENGTH: 364
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Sheep
; US-08-737-045-10

Query Match 93.9%; Score 46; DB 1; Length 364;
Best Local Similarity 90.0%; Pred. No. 0.21;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|:|||||
Db 318 HTFSGVASVE 327

RESULT 14

; US-10-145-682A-7
; Sequence 7, Application US/10145682A
; Patent No. 6720311
; GENERAL INFORMATION:
; APPLICANT: Tsai, David.
; TITLE OF INVENTION: Polypeptide for the Treatment of Cancer and a Method of Prepa:
; TITLE OF INVENTION: Thereof.

FILE REFERENCE: 2-04-1892
 CURRENT APPLICATION NUMBER: US/10/145,682A
 CURRENT FILING DATE: 2002-08-23
 PRIOR APPLICATION NUMBER: 09/902,208
 PRIOR FILING DATE: 2001-07-09
 PRIOR APPLICATION NUMBER: 09/414,136
 PRIOR FILING DATE: 1999-10-07
 PRIOR APPLICATION NUMBER: 09/149,878
 PRIOR FILING DATE: 1998-09-08
 PRIOR APPLICATION NUMBER: 08/993,432
 PRIOR FILING DATE: 1997-12-18
 NUMBER OF SEQ ID NOS: 7
 SOFTWARE: Microsoft Word 2001.
 SEQ ID NO 7
 LENGTH: 10
 TYPE: PRT
 ORGANISM: Mouse
 LOCATION: 300..309
 OTHER INFORMATION: Polypeptide fragment from fetuin.
 US-10-145-682A-7

Query Match 77.6%; Score 38; DB 2; Length 10;
 Best Local Similarity 80.0%; Pred. No. 0.17;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 |::| |::|
 Db 1 HAFSPVASVE 10

RESULT 15
 US-08-483-926A-11
 Sequence 11, Application US/08483926A
 Patent No. 5821227
 GENERAL INFORMATION:
 APPLICANT: Dennis, James W.
 TITLE OF INVENTION: MODULATORS OF CYTOKINES OF THE TGF BETA
 NUMBER OF SEQUENCES: 13
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: BERESKIN & PARR
 STREET: 40 King Street West
 CITY: Toronto
 STATE: Ontario
 COUNTRY: Canada
 ZIP: M5H 3Y2
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/483,926A
 FILING DATE: 07-JUN-1995
 CLASSIFICATION: 514
 ATTORNEY/AGENT INFORMATION:
 NAME: Kurdydk, Linda M.
 REGISTRATION NUMBER: 34,971
 REFERENCE/DOCKET NUMBER: 3153-155
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (416) 364-7311
 TELEFAX: (416) 361-1398
 INFORMATION FOR SEQ ID NO: 11:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 352 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 ORIGINAL SOURCE:
 ORGANISM: Rat
 US-08-483-926A-11

Query Match 77.6%; Score 38; DB 1; Length 352;
 Best Local Similarity 80.0%; Pred. No. 9;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 HSFSGVASVE 10
 |::| |::|
 Db 306 HAFSPVASVE 315

RESULT 16
 US-08-737-045-12
 Sequence 12, Application US/08737045A
 Patent No. 5981483
 GENERAL INFORMATION:
 APPLICANT: Dennis, James W.
 APPLICANT: Denetrou, Michael
 APPLICANT: Mount Sinai Hospital Corporation
 TITLE OF INVENTION: COMPOSITIONS COMPRISING MODULATORS OF CYTOKINES OF THE
 TITLE OF INVENTION: TGF β SUPERFAMILY AND A METHOD OF TREATMENT WITH SUCH A
 FILE REFERENCE: 7933-94USWO
 CURRENT APPLICATION NUMBER: US/08/737,045A
 CURRENT FILING DATE: 1997-03-20
 NUMBER OF SEQ ID NOS: 14
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 12
 LENGTH: 352
 TYPE: PRT
 ORGANISM: Unknown
 FEATURE:
 OTHER INFORMATION: Description of Unknown Organism:Rat
 US-08-737-045-12

Query Match 77.6%; Score 38; DB 1; Length 352;
 Best Local Similarity 80.0%; Pred. No. 9;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 |::| |::|
 Db 306 HAFSPVASVE 315

RESULT 17
 US-09-907-794A-245
 Sequence 245, Application US/09907794A
 Patent No. 6635468
 GENERAL INFORMATION:
 APPLICANT: Genentech, Inc.
 APPLICANT: Ashkenazi, Avi
 APPLICANT: Botstein, David
 APPLICANT: Desnoyers, Luc
 APPLICANT: Eaton, Dan L.
 APPLICANT: Ferrara, Napoleone
 APPLICANT: Filvaroff, Ellen
 APPLICANT: Fong, Sherman
 APPLICANT: Gao, Wei-Qiang
 APPLICANT: Gerber, Hanspeter
 APPLICANT: Gerritsen, Mary E.
 APPLICANT: Goddard, A.
 APPLICANT: Godowski, Paul J.
 APPLICANT: Grimaldi, Christopher J.
 APPLICANT: Gurney, Austin L.
 APPLICANT: Hillan, Kenneth, J.
 APPLICANT: Kljavin, Ivar J.
 APPLICANT: Mather, Jennie P.
 APPLICANT: Pan, James
 APPLICANT: Paoni, Nicholas F.
 APPLICANT: Roy, Margaret Ann
 APPLICANT: Stewart, Timothy A.
 APPLICANT: Tumas, Daniel
 APPLICANT: Williams, P. Mickey
 APPLICANT: Wood, William, I.
 TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,794A
; PRIOR FILING DATE: 2001-07-17
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-907-794A-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSPAGLASLQ 144

RESULT 18
US-09-905-125A-245
; Sequence 245, Application US/09905125A
; Patent No. 6664376
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Deenover, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.

; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/905,125A
; CURRENT FILING DATE: 2001-07-12
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-905-125A-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSPAGLASLQ 144

RESULT 19
US-09-902-775A-245
; Sequence 245, Application US/09902775A
; Patent No. 6686451
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi

```

; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,775A
; CURRENT FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
; US-09-902-775A-245

Query Match      75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

OY      1 HSFSGVASVE 10
DB      135 HSPAGLASLQ 144

RESULT 20
US-09-906-700-245
; Sequence 245, Application US/09906700
; Patent No. 6723535
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,700
; CURRENT FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219

```

; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-700-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:|:
Db 135 HSFAGLASLQ 144

RESULT 21

US-09-903-603A-245
; Sequence 245, Application US/09903603A
; Patent No. 6767995

GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Deenoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.

; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

; FILE REFERENCE: GNE.1618P2C12

; CURRENT APPLICATION NUMBER: US/09/903,603A

; CURRENT FILING DATE: 2001-07-11

; PRIOR APPLICATION NUMBER: PCT/US00/04414

; PRIOR FILING DATE: 2000-02-22

; PRIOR APPLICATION NUMBER: US 60/143,048

; PRIOR FILING DATE: 1999-07-07

; PRIOR APPLICATION NUMBER: US 60/145,698

; PRIOR FILING DATE: 1999-07-26

; PRIOR APPLICATION NUMBER: US 60/146,222

; PRIOR FILING DATE: 1999-07-28

; PRIOR APPLICATION NUMBER: PCT/US99/20594

; PRIOR FILING DATE: 1999-09-08

; PRIOR APPLICATION NUMBER: PCT/US99/20944

; PRIOR FILING DATE: 1999-09-13

; PRIOR APPLICATION NUMBER: PCT/US99/21090

; PRIOR FILING DATE: 1999-09-15

; PRIOR APPLICATION NUMBER: PCT/US99/21547

; PRIOR FILING DATE: 1999-09-15

; PRIOR APPLICATION NUMBER: PCT/US99/23089

; PRIOR FILING DATE: 1999-10-05

; PRIOR APPLICATION NUMBER: PCT/US99/28214

; PRIOR FILING DATE: 1999-11-29

; PRIOR APPLICATION NUMBER: PCT/US99/28313

; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-903-603A-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:|:
Db 135 HSFAGLASLQ 144

RESULT 22

US-09-904-920A-245
; Sequence 245, Application US/09904920A
; Patent No. 6806352

GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Deenoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.

; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

; FILE REFERENCE: 10466-14

; CURRENT APPLICATION NUMBER: US/09/904,920A

; CURRENT FILING DATE: 2001-07-13

; PRIOR APPLICATION NUMBER: PCT/US00/04414

; PRIOR FILING DATE: 2000-02-22

; PRIOR APPLICATION NUMBER: US 60/143,048

; PRIOR FILING DATE: 1999-07-07

; PRIOR APPLICATION NUMBER: US 60/145,698

; PRIOR FILING DATE: 1999-07-26

; PRIOR APPLICATION NUMBER: US 60/146,222

; PRIOR FILING DATE: 1999-07-28

; PRIOR APPLICATION NUMBER: PCT/US99/20594

```

; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-904-920A-245

```

```

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 1 HSFSGVASVE 10
Db 135 HSFAGLASLQ 144

```

```

RESULT 23
US-09-909-064-245
; Sequence 245, Application US/09909064
; Patent No. 6818449
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same

```

```

; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,064
; CURRENT FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-909-064-245

```

```

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 1 HSFSGVASVE 10
Db 135 HSFAGLASLQ 144

```

```

RESULT 24
US-09-905-381A-245
; Sequence 245, Application US/09905381A
; Patent No. 6818746
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.

```


Db 135 HSFAGLASLQ 144
|||:|:|:|:

RESULT 26

US-09-906-646-245
; Sequence 245, Application US/09906646
; Patent No. 6852848
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,646
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05

; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
; US-09-906-646-245

Query Match

Best Local Similarity 75.5%; Score 37; DB 2; Length 713;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:|:
Db 135 HSFAGLASLQ 144

RESULT 27

US-09-904-462-245
; Sequence 245, Application US/09904462
; Patent No. 6878807
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/904,462
; CURRENT FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29

; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-904-462-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSFAGLASLQ 144

RESULT 28

US-09-902-736A-245
; Sequence 245, Application US/09902736A
; Patent No. 6894148
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,736A
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28

; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-902-736A-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSFAGLASLQ 144

RESULT 29

US-09-906-722A-245
; Sequence 245, Application US/09906722A
; Patent No. 6946262
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: GNE.1618P2C61
; CURRENT APPLICATION NUMBER: US/09/906, 722A
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 245
; LENGTH: 713
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-722A-245

Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 32;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 135 HSFAGLASIQ 144

RESULT 30
US-09-949-016-9997
; Sequence 9997, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CLO01307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 9997
; LENGTH: 857
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-9997

Query Match 75.5%; Score 37; DB 2; Length 857;
Best Local Similarity 60.0%; Pred. No. 39;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 462 HSYSGVSSLD 471

RESULT 31
US-09-252-991A-21097
; Sequence 21097, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 107196.136
; CURRENT APPLICATION NUMBER: US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 21097
; LENGTH: 282
; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-21097

Query Match 73.5%; Score 36; DB 2; Length 282;
Best Local Similarity 70.0%; Pred. No. 18;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 262 HSIAGVGSVE 271

RESULT 32
US-09-248-796A-15329
; Sequence 15329, Application US/09248796A
; Patent No. 6747137
; GENERAL INFORMATION:
; APPLICANT: Keith Weinstock et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBI
; TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 107196.132
; CURRENT APPLICATION NUMBER: US/09/248,796A
; CURRENT FILING DATE: 1999-02-12
; PRIOR APPLICATION NUMBER: US 60/074,725
; PRIOR FILING DATE: 1998-02-13
; PRIOR APPLICATION NUMBER: US 60/096,409
; PRIOR FILING DATE: 1998-08-13
; NUMBER OF SEQ ID NOS: 28208
; SEQ ID NO 15329
; LENGTH: 334
; TYPE: PRT
; ORGANISM: Candida albicans
; FEATURE:
; NAME/KEY: UNSURE
; LOCATION: (29)
; OTHER INFORMATION: Identity of amino acid sequences at the above locations are ur
US-09-248-796A-15329

Query Match 71.4%; Score 35; DB 2; Length 334;

```
Best Local Similarity 66.7%; Pred. No. 35;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9
Db 101 HSFEGAASI 109

RESULT 33
US-09-701-868-11
; Sequence 11, Application US/09701868
; Patent No. 6872813
; GENERAL INFORMATION:
; APPLICANT: U.S. Department of Agriculture
; TITLE OF INVENTION: Genes Coding For Tomato Beta-Calactosidase Polypeptides
; FILE REFERENCE: 70608/125650
; CURRENT APPLICATION NUMBER: US/09/701,868
; CURRENT FILING DATE: 2000-12-05
; PRIOR APPLICATION NUMBER: 60/088,805
; PRIOR FILING DATE: 1998-06-09
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
; LENGTH: 724
; TYPE: PRT
; ORGANISM: Lycopersicon esculentum
US-09-701-868-11

Query Match 69.4%; Score 34; DB 2; Length 724;
Best Local Similarity 70.0%; Pred. No. 1.3e+02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 594 HSLSGSSVE 603

RESULT 34
US-09-701-868-10
; Sequence 10, Application US/09701868
; Patent No. 6872813
; GENERAL INFORMATION:
; APPLICANT: U.S. Department of Agriculture
; TITLE OF INVENTION: Genes Coding For Tomato Beta-Calactosidase Polypeptides
; FILE REFERENCE: 70608/125650
; CURRENT APPLICATION NUMBER: US/09/701,868
; CURRENT FILING DATE: 2000-12-05
; PRIOR APPLICATION NUMBER: 60/088,805
; PRIOR FILING DATE: 1998-06-09
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
; LENGTH: 838
; TYPE: PRT
; ORGANISM: Lycopersicon esculentum
US-09-701-868-10

Query Match 69.4%; Score 34; DB 2; Length 838;
Best Local Similarity 70.0%; Pred. No. 1.6e+02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
Db 595 HSLSGSSVE 604

RESULT 35
US-09-252-991A-21116
; Sequence 21116, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
```

```
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 107196.136
; CURRENT APPLICATION NUMBER: US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 21116
; LENGTH: 266
; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-21116

Query Match 67.3%; Score 33; DB 2; Length 266;
Best Local Similarity 75.0%; Pred. No. 70;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVAS 8
Db 172 HSFSGMGS 179

RESULT 36
US-08-907-674-1
; Sequence 1, Application US/08907674
; Patent No. 5919685
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Shah, Purvi
; APPLICANT: Guegler, Karl J.
; APPLICANT: Corley, Neil C.
; TITLE OF INVENTION: HUMAN AFLATOXIN B1 ALDEHYDE REDUCTASE
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/907,674
; FILING DATE: Herewith
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0362 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; TELEX:
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 331 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: BRAINOT14
; CLONE: 1596452
US-08-907-674-1
```

Query Match 67.3%; Score 33; DB 1; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 37
US-09-215-087-1
; Sequence 1, Application US/09215087
; Patent No. 5981244
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Shah, Purvi
; APPLICANT: Guegler, Karl J.
; TITLE OF INVENTION: HUMAN AFLATOXIN B1 ALDEHYDE REDUCTASE
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/215,087
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/907,674
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0362 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; TELEX:
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 331 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: BRAINOT14
; CLONE: 1596452

US-09-215-087-1
Query Match 67.3%; Score 33; DB 1; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 38
US-09-391-959-1
; Sequence 1, Application US/09391959
; Patent No. 6071704
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga

Query Match 67.3%; Score 33; DB 1; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

Query Match 67.3%; Score 33; DB 1; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

APPLICANT: Shah, Purvi
APPLICANT: Guegler, Karl J.
APPLICANT: Corley, Neil C.
TITLE OF INVENTION: HUMAN AFLATOXIN B1 ALDEHYDE REDUCTASE
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/391,959
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/907,674
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0362 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
TELEX:
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 331 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: BRAINOT14
CLONE: 1596452

US-09-391-959-1
Query Match 67.3%; Score 33; DB 2; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

US-09-391-959-1
Query Match 67.3%; Score 33; DB 2; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

US-09-391-959-1
Query Match 67.3%; Score 33; DB 2; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

US-09-391-959-1
Query Match 67.3%; Score 33; DB 2; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

US-09-391-959-1
Query Match 67.3%; Score 33; DB 2; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

RESULT 39
US-09-914-286-4
; Sequence 4, Application US/09914286
; Patent No. 6864073
; GENERAL INFORMATION:
; APPLICANT: OMURA, Satoshi
; APPLICANT: IKEDA, Haruo
; TITLE OF INVENTION: AVERMECTIN AGLYCON SYNTHASE GENES
; FILE REFERENCE: 468-30/PH-775-PCT
; CURRENT APPLICATION NUMBER: US/09/914,286
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: PCT/JP00/01041
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: JP 99/46961
; PRIOR FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6239
; TYPE: PRT
; ORGANISM: Streptomyces avermitilis

US-09-391-959-1
Query Match 67.3%; Score 33; DB 2; Length 331;
Best Local Similarity 60.0%; Pred. No. 90;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 240 HHFEGIALVE 249

US-09-914-286-4

Query Match 67.3%; Score 33; DB 2; Length 6239;
Best Local Similarity 75.0%; Pred. No. 2.3e+03;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVAS 8

Db 5287 HSYSGTAS 5294

RESULT 40

US-09-248-796A-21389
; Sequence 21389, Application US/09248796A
; Patent No. 6747137

; GENERAL INFORMATION:

; APPLICANT: Keith Weinstock et al

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN

; FILE REFERENCE: 107196.132

; CURRENT APPLICATION NUMBER: US/09/248,796A

; CURRENT FILING DATE: 1999-02-12

; PRIOR APPLICATION NUMBER: US 60/074,725

; PRIOR FILING DATE: 1998-02-13

; PRIOR APPLICATION NUMBER: US 60/096,409

; PRIOR FILING DATE: 1998-08-13

; NUMBER OF SEQ ID NOS: 28208

; SEQ ID NO 21389

; LENGTH: 205

; TYPE: PRT

; ORGANISM: Candida albicans

US-09-248-796A-21389

Query Match 65.3%; Score 32; DB 2; Length 205;
Best Local Similarity 62.5%; Pred. No. 85;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVAS 8

Db 117 HSFSGITA 124

RESULT 41

US-09-857-612A-4

; Sequence 4, Application US/09857612A

; Patent No. 6940003

; GENERAL INFORMATION:

; APPLICANT: E. I. du Pont de Nemours and Company

; TITLE OF INVENTION: Plant Lecithin:Cholesterol Acyltransferases

; FILE REFERENCE: BB1262

; CURRENT APPLICATION NUMBER: US/09/857,612A

; CURRENT FILING DATE: 2001-10-18

; PRIOR APPLICATION NUMBER: 60/110,782

; PRIOR FILING DATE: 1998-12-03

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 4

; LENGTH: 233

; TYPE: PRT

; ORGANISM: Zea mays

US-09-857-612A-4

Query Match 65.3%; Score 32; DB 2; Length 233;
Best Local Similarity 50.0%; Pred. No. 98;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVAS 10

Db 206 HSFSGWVALE 215

RESULT 42

US-09-489-039A-10735

; Sequence 10735, Application US/09489039A

; Patent No. 6610836

; GENERAL INFORMATION:

; APPLICANT: Gary Breton et. al

; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

; FILE REFERENCE: 2709.2004001

; CURRENT APPLICATION NUMBER: US/09/489,039A

; CURRENT FILING DATE: 2000-01-27

; PRIOR APPLICATION NUMBER: US 60/117,747

; PRIOR FILING DATE: 1999-01-29

; NUMBER OF SEQ ID NOS: 14342

; SEQ ID NO 10735

; LENGTH: 263

; TYPE: PRT

; ORGANISM: Klebsiella pneumoniae

US-09-489-039A-10735

Query Match 65.3%; Score 32; DB 2; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.1e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGV 6

Db 257 HSFSGV 262

RESULT 43

US-09-857-612A-8

; Sequence 8, Application US/09857612A

; Patent No. 6940003

; GENERAL INFORMATION:

; APPLICANT: E. I. du Pont de Nemours and Company

; TITLE OF INVENTION: Plant Lecithin:Cholesterol Acyltransferases

; FILE REFERENCE: BB1262

; CURRENT APPLICATION NUMBER: US/09/857,612A

; CURRENT FILING DATE: 2001-10-18

; PRIOR APPLICATION NUMBER: 60/110,782

; PRIOR FILING DATE: 1998-12-03

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 8

; LENGTH: 434

; TYPE: PRT

; ORGANISM: Zea mays

US-09-857-612A-8

Query Match 65.3%; Score 32; DB 2; Length 434;
Best Local Similarity 50.0%; Pred. No. 1.9e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10

Db 208 HSFSGWVALE 217

RESULT 44

US-09-857-612A-12

; Sequence 12, Application US/09857612A

; Patent No. 6940003

; GENERAL INFORMATION:

; APPLICANT: E. I. du Pont de Nemours and Company

; TITLE OF INVENTION: Plant Lecithin:Cholesterol Acyltransferases

; FILE REFERENCE: BB1262

; CURRENT APPLICATION NUMBER: US/09/857,612A

; CURRENT FILING DATE: 2001-10-18

; PRIOR APPLICATION NUMBER: 60/110,782

; PRIOR FILING DATE: 1998-12-03

; NUMBER OF SEQ ID NOS: 15

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 12

; LENGTH: 439

; TYPE: PRT

; ORGANISM: Zea mays
US-09-857-612A-12

Query Match 65.3%; Score 32; DB 2; Length 439;
Best Local Similarity 50.0%; Pred. No. 2e+02;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
||| | :| :|
Db 206 HSFVGWALE 215

RESULT 45

US-08-801-344-9
; Sequence 9, Application US/08801344
; Patent No. 6087140
; GENERAL INFORMATION:
; APPLICANT: Cameron, Douglas C.
; APPLICANT: Shaw, Anita J.
; APPLICANT: Altaras, Nedim E.
; TITLE OF INVENTION: MICROBIAL PRODUCTION OF 1,2-PROPANEDIOL
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dewitt Ross & Stevens S.C.
; STREET: 8000 Excelsior Drive, Suite 401
; CITY: Madison
; STATE: WI
; COUNTRY: U.S.A.
; ZIP: 53717-1914
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/801,344
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Sara, Charles S.
; REFERENCE/DOCKET NUMBER: 09820.037
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 608-831-2100
; TELEFAX: 608-831-2106
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 462 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; FRAGMENT TYPE: N-terminal
; ORIGINAL SOURCE:
; ORGANISM: B
; ORGANISM: Pyridine nucleotide transhydrogenase, subunit
US-08-801-344-9

Query Match 65.3%; Score 32; DB 2; Length 462;
Best Local Similarity 66.7%; Pred. No. 2.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9
||| | :| :|
Db 91 HSFVGLAAV 99

RESULT 46

US-09-498-599-9
; Sequence 9, Application US/09498599
; Patent No. 6303352

; GENERAL INFORMATION:
; APPLICANT: Cameron, Douglas C.
; APPLICANT: Shaw, Anita J.
; APPLICANT: Altaras, Nedim E.
; TITLE OF INVENTION: MICROBIAL PRODUCTION OF
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dewitt Ross & Stevens S.C.
; STREET: 8000 Excelsior Drive, Suite 401
; CITY: Madison
; STATE: WI
; COUNTRY: U.S.A.
; ZIP: 53717-1914
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/498,599
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Sara, Charles S.
; REFERENCE/DOCKET NUMBER: 09820.037
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 608-831-2100
; TELEFAX: 608-831-2106
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 462 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; FRAGMENT TYPE: N-terminal
; ORIGINAL SOURCE:
; ORGANISM: B
; ORGANISM: Pyridine nucleotide transhydrogenase, subunit
US-09-498-599-9

Query Match 65.3%; Score 32; DB 2; Length 462;
Best Local Similarity 66.7%; Pred. No. 2.1e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 HSFSGVASV 9
||| | :| :|
Db 91 HSFVGLAAV 99

RESULT 47

US-09-489-039A-13942
; Sequence 13942, Application US/09489039A
; Patent No. 6610836
; GENERAL INFORMATION:
; APPLICANT: Gary Breton et. al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
; FILE REFERENCE: 2709.2004001
; CURRENT APPLICATION NUMBER: US/09/489,039A
; CURRENT FILING DATE: 2000-01-27
; PRIOR APPLICATION NUMBER: US 60/117,747
; PRIOR FILING DATE: 1999-01-29
; NUMBER OF SEQ ID NOS: 14342
; SEQ ID NO 13942
; LENGTH: 463
; TYPE: PRT
; ORGANISM: Klebsiella pneumoniae
US-09-489-039A-13942

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2006, 17:35:24 ; Search time 189 Seconds
(without alignments)
23.248 Million cell updates/sec

Title: US-10-772-537-4

Perfect score: 49

Sequence: 1 HSPSGVASVE 10

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database :

A_Geneseq_21.*

1: Geneseq1980s.*

2: Geneseq1990s.*

3: Geneseq2000s.*

4: Geneseq2001s.*

5: Geneseq2002s.*

6: Geneseq2003as.*

7: Geneseq2003bs.*

8: Geneseq2004s.*

9: Geneseq2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	49	100.0	10	6	ABU63696 Pig fetui
2	49	100.0	10	6	ADA26731 Pig fetui
3	49	100.0	10	9	ADV44763 Porcine f
4	46	93.9	10	6	ABU63698 Rat fetui
5	46	93.9	10	6	ABU63697 Sheep fet
6	46	93.9	10	6	ABU08898 Bovine fe
7	46	93.9	10	6	ADA26728 Bovine fe
8	46	93.9	10	6	ADA26733 Rat fetui
9	46	93.9	10	6	ADA26732 Sheep fet
10	46	93.9	10	9	ADVA4760 Bovine fe
11	46	93.9	10	9	ADVA4765 Rat fetui
12	46	93.9	10	9	ADVA4764 Ovine fet
13	46	93.9	18	7	AEA78929 Bovine Se
14	46	93.9	341	4	AAE30555 Amino aci
15	46	93.9	359	2	AAW61491 Human fet
16	46	93.9	359	2	AAV07247 Human fet
17	46	93.9	359	3	AAV56990 Bovine fe
18	46	93.9	359	3	ABV78019 Bovine al
19	38	77.6	10	6	ABU63699 Mouse fet
20	38	77.6	10	6	ADA26734 Mouse fet
21	38	77.6	10	9	ADVA4766 Murine fe
22	38	77.6	346	5	ABB78017 Murine al
23	38	77.6	352	5	ABB78018 Rat alpha
24	38	77.6	352	7	ADD48974 Rat Prote

98 37 75.5 713 8 AD118727 Ad118727 Human sec
99 37 75.5 713 8 AD165447 Ad165447 Human sec
100 37 75.5 713 8 AD137706 Ad137706 Human sec

ALIGNMENTS

RESULT 1
ABU63696
ID ABU63696 standard; peptide; 10 AA.
XX AC ABU63696;
XX 11-OCT-2003 (first entry)
XX Pig fetuin apoptosis-inducing peptide fragment.
XX Pig; apoptosis; fetuin; cancer; alpha-2-Human serum glycoprotein;
KW alpha-2-HS glycoprotein; foetal protein; tissue remodelling; cell death;
KW embryonic development; supercharged zinc alpha 2-HS glycoprotein; HT-29;
KW colon cancer; LNCaP; prostate cancer; Hep G2; Hepatoma; cytostatic;
KW apoptosis inducer.

Same inventor

XX OS Sus scrofa.
XX US2003087809-A1.
XX 08-MAY-2003.
XX 08-OCT-2002; 2002US-00267706.
XX 18-DEC-1997; 97US-00993432.
XX 08-SEP-1998; 98US-00149878.
XX 07-OCT-1999; 99US-00414136.
XX 09-JUL-2001; 2001US-00902208.
XX 14-MAY-2002; 2002US-00145682.
XX (TSAI/) TSAI D.
XX Tsai D;
XX WPI; 2003-567578/53.
XX Process for inducing apoptosis in cancer cells involves use of alpha-2-
PT human serum glycoprotein or its peptide fragment.
XX Disclosure; Page 11; 27pp; English.

XX The invention discloses a method for the induction of apoptosis in cancer
CC cells which involves the administration of alpha-2-Human serum (HS)
CC glycoprotein or its peptide fragment to the cancer cells. Alpha-2-HS
CC glycoprotein is a homologue of bovine fetuin, which is a mainly foetal
CC protein and has been shown to control tissue remodelling and
CC physiological cell death during embryonic development, suggesting that it
CC may contain an activity for inducing apoptosis. Methods are also
CC disclosed for the preparation of supercharged zinc alpha 2-HS
CC glycoprotein from alpha 2-HS glycoprotein, which exhibited an increased
CC apoptotic activity. The method is used for inducing apoptosis in cancer
CC cells and treating the cancer. The alpha-2-HS, which has been over-loaded
CC with zinc, as well as its fragments, exhibits selectivity for inducing
CC apoptosis in HT-29 (colon cancer), LNCaP (prostate cancer) and Hep G2
CC (Hepatoma) cells, and does not affect CEM18 CO (normal colon) cells. The
CC sequence presented is the pig fetuin apoptosis-inducing peptide fragment
SQ Sequence 10 AA;

Query Match 100.0%; Score 49; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0025;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Oy 1 HSPSGVASVE 10
|||||||

Db 1 HSPSGVASVE 10
RESULT 2
ADA26731
ID ADA26731 standard; peptide; 10 AA.
XX AC ADA26731;
XX 20-NOV-2003 (first entry)
XX Pig fetuin peptide fragment (FPF).
KW Pig; colon cancer; prostate cancer; zinc-charged bovine fetuin; fetuin;
KW fetuin peptide fragment; PPF; apoptosis.
XX OS Sus scrofa.
XX US2003027767-A1.
XX 06-FEB-2003.
XX 14-MAY-2002; 2002US-00145682.
XX 18-DEC-1997; 97US-00993432.
XX 08-SEP-1998; 98US-00149878.
XX 07-OCT-1999; 99US-00414136.
XX 09-JUL-2001; 2001US-00902208.
XX (TSAI/) TSAI D.
XX Tsai D;
XX WPI; 2003-615747/58.
XX New compound comprising peptide fragment derived from specially prepared
PT zinc-charged bovine fetuin, useful for treating colon and prostate
PT cancer, by causing apoptosis in colon cancer and prostate cancer cells.
XX Example; Page 11; 20pp; English.

Same inventor

XX The invention relates to a compound for treatment of colon and prostate
CC cancer produced from a peptide fragment derived from specially prepared
CC zinc-charged bovine fetuin, where the peptide fragment corresponds to
CC amino acid residues 300-309 of fetuin (referred to as fetuin peptide
CC fragment (FPF 300-309)), and human or mouse peptides that correspond to
CC PPF 300-309. The human PPF causes apoptosis in colon cancer cells and
CC prostate cancer cells. The invention also relates to preparing a
CC polypeptide having apoptotic activity isolated from fetuin comprising
CC incubating fetuin in solution with a chelating agent, isolating zinc
CC charged fetuin from the solution, drying the zinc charged fetuin,
CC dissolving the dried zinc charged fetuin in water to form a solution and
CC isolating from the solution the filtrates that have been predetermined to
CC have apoptotic activity in cancer cells. The compound is useful for
CC treating prostate or colon cancer by inducing apoptosis of the cancerous
CC cells. This sequence represents a pig fetuin fragment of the invention.
SQ Sequence 10 AA;

Query Match 100.0%; Score 49; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0025;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Oy 1 HSPSGVASVE 10
|||||||

RESULT 3
ADV44763
ID ADV44763 standard; peptide; 10 AA.
XX

AC ADV44763;
XX
DT 10-MAR-2005 (first entry)
XX
DE Porcine fetuin fragment PFP 300-09 SEQ ID NO:4.
XX
KW fetuin; colon tumor; prostate tumor; neoplasm; apoptosis; cytostatic;
KW protein therapy.
XX
OS Sus scrofa.
XX
PN US2004259800-A1.
XX
PD 23-DEC-2004.
XX
PF 05-FEB-2004; 2004US-00772537.
XX
PR 18-DEC-1997; 97US-00993432.
PR 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
PR 14-MAY-2002; 2002US-00145682.
XX
PA (TSAI/) TSAI D.
XX
PI Tsai D;
XX
DR WPI; 2005-038780/04.
XX
PT New compound or fetuin polypeptides useful for treating colon and
PT prostate cancer by causing apoptosis in colon and prostate cancer cells,
PT thus offering a breakthrough in cancer therapy.
XX
PS Claim 11; SEQ ID NO 4; 20pp; English.
XX
CC The invention relates to a novel compound or fetuin polypeptides for the
CC treatment of colon and prostate cancer, where the polypeptide causes
CC apoptosis in colon and prostate cancer cells. A compound or peptide of
CC the invention has cytostatic activity, and may have a use in protein
CC therapy. The fetuin polypeptides are useful for treating colon and
CC prostate cancer, thus offering a breakthrough in cancer therapy. The
CC present sequence represents the porcine fetuin peptide fragment (PFP) 300
CC -09, amino acids 300-309 of the full-length fetuin polypeptide.
XX
SQ Sequence 10 AA;
Query Match 100.0%; Score 49; DB 9; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0025;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 HSFSGVASVE 10
Db |||||
1 HSFSGVASVE 10
RESULT 4
ABU63698
ID ABU63698 standard; peptide; 10 AA.
XX
AC ABU63698;
XX
DT 11-OCT-2003 (first entry)
XX
DE Rat fetuin apoptosis-inducing peptide fragment.
XX
KW Rat; apoptosis; fetuin; cancer; alpha-2-Human serum glycoprotein;
KW alpha-2-HS glycoprotein; foetal protein; tissue remodelling; cell death;
KW embryonic development; supercharged zinc alpha 2-HS glycoprotein; HT-29;
KW colon cancer; LNCap; prostate cancer; Hep G2; Hepatoma; cytostatic;
KW apoptosis inducer.
XX
OS Rattus sp.
XX

ADV44763;
XX
DT 10-MAR-2005 (first entry)
XX
DE Porcine fetuin fragment PFP 300-09 SEQ ID NO:4.
XX
KW fetuin; colon tumor; prostate tumor; neoplasm; apoptosis; cytostatic;
KW protein therapy.
XX
OS Sus scrofa.
XX
PN US2004259800-A1.
XX
PD 23-DEC-2004.
XX
PF 05-FEB-2004; 2004US-00772537.
XX
PR 18-DEC-1997; 97US-00993432.
PR 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
PR 14-MAY-2002; 2002US-00145682.
XX
PA (TSAI/) TSAI D.
XX
PI Tsai D;
XX
DR WPI; 2005-038780/04.
XX
PT New compound or fetuin polypeptides useful for treating colon and
PT prostate cancer by causing apoptosis in colon and prostate cancer cells,
PT thus offering a breakthrough in cancer therapy.
XX
PS Claim 11; SEQ ID NO 4; 20pp; English.
XX
CC The invention relates to a novel compound or fetuin polypeptides for the
CC treatment of colon and prostate cancer, where the polypeptide causes
CC apoptosis in colon and prostate cancer cells. A compound or peptide of
CC the invention has cytostatic activity, and may have a use in protein
CC therapy. The fetuin polypeptides are useful for treating colon and
CC prostate cancer, thus offering a breakthrough in cancer therapy. The
CC present sequence represents the porcine fetuin peptide fragment (PFP) 300
CC -09, amino acids 300-309 of the full-length fetuin polypeptide.
XX
SQ Sequence 10 AA;
Query Match 100.0%; Score 49; DB 9; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0025;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 HSFSGVASVE 10
Db |||||
1 HSFSGVASVE 10
RESULT 4
ABU63698
ID ABU63698 standard; peptide; 10 AA.
XX
AC ABU63698;
XX
DT 11-OCT-2003 (first entry)
XX
DE Rat fetuin apoptosis-inducing peptide fragment.
XX
KW Rat; apoptosis; fetuin; cancer; alpha-2-Human serum glycoprotein;
KW alpha-2-HS glycoprotein; foetal protein; tissue remodelling; cell death;
KW embryonic development; supercharged zinc alpha 2-HS glycoprotein; HT-29;
KW colon cancer; LNCap; prostate cancer; Hep G2; Hepatoma; cytostatic;
KW apoptosis inducer.
XX
OS Rattus sp.
XX

Samuel Ruvanto

PN US2003087809-A1.
XX
PD 08-MAY-2003.
XX
PF 08-OCT-2002; 2002US-00267706.
XX
PR 18-DEC-1997; 97US-00993432.
PR 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
PR 14-MAY-2002; 2002US-00145682.
XX
PA (TSAI/) TSAI D.
XX
PI Tsai D;
XX
DR WPI; 2003-567578/53.
XX
PT Process for inducing apoptosis in cancer cells involves use of alpha-2-
PT human serum glycoprotein or its peptide fragment.
XX
PS Disclosure, Page 11; 27pp; English.
XX
CC The invention discloses a method for the induction of apoptosis in cancer
CC cells which involves the administration of alpha-2-Human serum (HS)
CC glycoprotein or its peptide fragment to the cancer cells. Alpha-2-HS
CC glycoprotein is a homologue of bovine fetuin, which is a mainly foetal
CC protein and has been shown to control tissue remodelling and
CC physiological cell death during embryonic development, suggesting that it
CC may contain an activity for inducing apoptosis. Methods are also
CC disclosed for the preparation of supercharged zinc alpha 2-HS
CC glycoprotein from alpha 2-HS glycoprotein, which exhibited an increased
CC apoptotic activity. The method is used for inducing apoptosis in cancer
CC cells and treating the cancer. The alpha-2-HS, which has been overloaded
CC with zinc, as well as its fragments, exhibits selectivity for inducing
CC apoptosis in HT-29 (colon cancer), LNCap (prostate cancer) and Hep G2
CC (Hepatoma) cells, and does not affect CEM18 CO (normal colon) cells. The
CC sequence presented is the rat fetuin apoptosis-inducing peptide fragment
XX
SQ Sequence 10 AA;
Query Match 93.9%; Score 46; DB 6; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 HSFSGVASVE 10
Db |||||
1 HSFSGVASVE 10
RESULT 5
ABU63697
ID ABU63697 standard; peptide; 10 AA.
XX
AC ABU63697;
XX
DT 11-OCT-2003 (first entry)
XX
DE Sheep fetuin apoptosis-inducing peptide fragment.
XX
KW Sheep; apoptosis; fetuin; cancer; alpha-2-Human serum glycoprotein;
KW alpha-2-HS glycoprotein; foetal protein; tissue remodelling; cell death;
KW embryonic development; supercharged zinc alpha 2-HS glycoprotein; HT-29;
KW colon cancer; LNCap; prostate cancer; Hep G2; Hepatoma; cytostatic;
KW apoptosis inducer.
XX
OS Ovis sp.
XX
PN US2003087809-A1.
XX
PD 08-MAY-2003.
XX
PF 08-OCT-2002; 2002US-00267706.

XX PT New compound comprising peptide fragment derived from specially prepared
 PT zinc-charged bovine fetuin, useful for treating colon and prostate
 PT cancer, by causing apoptosis in colon cancer and prostate cancer cells.
 XX PS
 XX PS Claim 1; Page 13; 20pp; English.
 CC The invention relates to a compound for treatment of colon and prostate
 CC cancer produced from a peptide fragment derived from specially prepared
 CC zinc-charged bovine fetuin, where the peptide fragment corresponds to
 CC amino acid residues 300-309 of fetuin (referred to as fetuin peptide
 CC fragment (FPF 300-309)), and human or mouse peptides that correspond to
 CC FPF 300-309. The human FPF causes apoptosis in colon cancer cells and
 CC prostate cancer cells. The invention also relates to preparing a
 CC polypeptide having apoptotic activity isolated from fetuin comprising
 CC incubating fetuin in solution with a chelating agent, isolating naked
 CC charged fetuin from the solution, drying the zinc charged fetuin,
 CC dissolving the dried zinc charged fetuin in water to form a solution and
 CC isolating from the solution the filtrates that have been predetermined to
 CC have apoptotic activity in cancer cells. The compound is useful for
 CC treating prostate or colon cancer by inducing apoptosis of the cancerous
 CC cells. This sequence represents a bovine fetuin fragment of the
 CC invention.

XX SQ Sequence 10 AA;

Query Match 93.9%; Score 46; DB 6; Length 10;
 Best Local Similarity 90.0%; Pred. No. 0.011;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 Db :|||||
 1 HTFSGVASVE 10

RESULT 8

ADA26733
 ID ADA26733 standard; peptide; 10 AA.

XX AC ADA26733;

XX DT 20-NOV-2003 (first entry)

XX DE Rat fetuin peptide fragment (FPF).

XX KW Rat; colon cancer; prostate cancer; zinc-charged bovine fetuin; fetuin;
 KW fetuin peptide fragment; FPF; apoptosis.

XX OS Rattus sp.

XX PN US2003027767-A1.

XX XX 06-FEB-2003.

XX PF 14-MAY-2002; 2002US-00145682.

XX PR 18-DEC-1997; 97US-00993432.

XX PR 08-SEP-1998; 98US-00149878.

XX PR 07-OCT-1999; 99US-00414136.

XX PR 09-JUL-2001; 2001US-00902208.

XX PA (TSAI/) TSAI D.

XX PI Tsai D;

XX DR WPI; 2003-615747/58.

XX The invention relates to a compound for treatment of colon and prostate
 CC cancer produced from a peptide fragment derived from specially prepared
 CC zinc-charged bovine fetuin, useful for treating colon and prostate
 CC cancer, by causing apoptosis in colon cancer and prostate cancer cells.

XX PS Example; Page 11; 20pp; English.

XX

CC The invention relates to a compound for treatment of colon and prostate
 CC cancer produced from a peptide fragment derived from specially prepared
 CC zinc-charged bovine fetuin, where the peptide fragment corresponds to
 CC amino acid residues 300-309 of fetuin (referred to as fetuin peptide
 CC fragment (FPF 300-309)), and human or mouse peptides that correspond to
 CC FPF 300-309. The human FPF causes apoptosis in colon cancer cells and
 CC prostate cancer cells. The invention also relates to preparing a
 CC polypeptide having apoptotic activity isolated from fetuin comprising
 CC incubating fetuin in solution with a chelating agent, isolating naked
 CC charged fetuin from the solution, drying the zinc charged fetuin,
 CC dissolving the dried zinc charged fetuin in water to form a solution and
 CC isolating from the solution the filtrates that have been predetermined to
 CC have apoptotic activity in cancer cells. The compound is useful for
 CC treating prostate or colon cancer by inducing apoptosis of the cancerous
 CC cells. This sequence represents a rat fetuin fragment of the invention.

XX SQ Sequence 10 AA;

Query Match 93.9%; Score 46; DB 6; Length 10;
 Best Local Similarity 90.0%; Pred. No. 0.011;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 Db :|||||
 1 HTFSGVASVE 10

RESULT 9

ADA26732
 ID ADA26732 standard; peptide; 10 AA.

XX AC ADA26732;

XX DT 20-NOV-2003 (first entry)

XX DE Sheep fetuin peptide fragment (FPF).

XX KW Sheep; colon cancer; prostate cancer; zinc-charged bovine fetuin; fetuin;
 KW fetuin peptide fragment; FPF; apoptosis.

XX OS Ovis aries.

XX PN US2003027767-A1.

XX PD 06-FEB-2003.

XX PF 14-MAY-2002; 2002US-00145682.

XX PR 18-DEC-1997; 97US-00993432.

XX PR 08-SEP-1998; 98US-00149878.

XX PR 07-OCT-1999; 99US-00414136.

XX PR 09-JUL-2001; 2001US-00902208.

XX PA (TSAI/) TSAI D.

XX PI Tsai D;

XX DR WPI; 2003-615747/58.

XX New compound comprising peptide fragment derived from specially prepared
 PT zinc-charged bovine fetuin, useful for treating colon and prostate
 PT cancer, by causing apoptosis in colon cancer and prostate cancer cells.

XX PS Example; Page 11; 20pp; English.

CC The invention relates to a compound for treatment of colon and prostate
 CC cancer produced from a peptide fragment derived from specially prepared
 CC zinc-charged bovine fetuin, where the peptide fragment corresponds to
 CC amino acid residues 300-309 of fetuin (referred to as fetuin peptide
 CC fragment (FPF 300-309)), and human or mouse peptides that correspond to
 CC FPF 300-309. The human FPF causes apoptosis in colon cancer cells and

CC prostate cancer cells. The invention also relates to preparing a
 CC polypeptide having apoptotic activity isolated from fetuin comprising
 CC incubating fetuin in solution with a chelating agent, isolating naked
 CC charged fetuin from the solution, drying the zinc charged fetuin,
 CC dissolving the dried zinc charged fetuin in water to form a solution and
 CC isolating from the solution the filtrates that have been predetermined to
 CC have apoptotic activity in cancer cells. The compound is useful for
 CC treating prostate or colon cancer by inducing apoptosis of the cancerous
 CC cells. This sequence represents a sheep fetuin fragment of the invention.
 XX

SQ Sequence 10 AA;

Query Match 93.9%; Score 46; DB 6; Length 10;
 Best Local Similarity 90.0%; Pred. No. 0.011;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFGSVASVE 10
 Db 1 HTFSGVASVE 10

RESULT 10

ADV44760
 ID ADV44760 standard; peptide; 10 AA.

XX

AC ADV44760;

XX

DT 10-MAR-2005 (first entry)

XX Bovine fetuin fragment PPF 300-09 SEQ ID NO:1.

DE fetuin; colon tumor; prostate tumor; neoplasm; apoptosis; cytostatic;
 KW protein therapy.

XX

OS Bos sp.

XX

PN US2004259800-A1.

XX

PD 23-DEC-2004.

XX

PF 05-FEB-2004; 2004US-00772537.

XX

PR 18-DEC-1997; 97US-00993432.

XX

PR 08-SEP-1998; 98US-00149878.

XX

PR 07-OCT-1999; 99US-00414136.

XX

PR 09-JUL-2001; 2001US-00902208.

XX

PR 14-MAY-2002; 2002US-00145682.

XX

PA (TSAI/) TSAI D.

XX

PI Tsai D;

XX

DR WPI; 2005-038780/04.

XX

PT New compound or fetuin polypeptides useful for treating colon and

XX

PT prostate cancer by causing apoptosis in colon and prostate cancer cells,

XX

PT thus offering a breakthrough in cancer therapy.

XX

PS Claim 11; SEQ ID NO 1; 20pp; English.

XX

CC The invention relates to a novel compound or fetuin polypeptides for the

XX

CC treatment of colon and prostate cancer, where the polypeptide causes

XX

CC apoptosis in colon and prostate cancer cells. A compound or peptide of

XX

CC the invention has cytostatic activity, and may have a use in protein

XX

CC therapy. The fetuin polypeptides are useful for treating colon and

XX

CC prostate cancer, thus offering a breakthrough in cancer therapy. The

XX

CC present sequence represents the bovine fetuin peptide fragment (PPF) 300-

XX

CC 09, amino acids 300-309 of the full-length fetuin polypeptide.

XX

SQ Sequence 10 AA;

Query Match 93.9%; Score 46; DB 9; Length 10;

Best Local Similarity 90.0%; Pred. No. 0.011;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFGSVASVE 10
 Db 1 HTFSGVASVE 10

RESULT 11

ADV44765
 ID ADV44765 standard; peptide; 10 AA.

XX

AC ADV44765;

XX

DT 10-MAR-2005 (first entry)

XX

DE Rat fetuin fragment PPF 300-09 SEQ ID NO:6.

XX

DE fetuin; colon tumor; prostate tumor; neoplasm; apoptosis; cytostatic;

XX

KW protein therapy.

XX

OS Rattus sp.

XX

PN US2004259800-A1.

XX

PD 23-DEC-2004.

XX

PF 05-FEB-2004; 2004US-00772537.

XX

PR 18-DEC-1997; 97US-00993432.

XX

PR 08-SEP-1998; 98US-00149878.

XX

PR 07-OCT-1999; 99US-00414136.

XX

PR 09-JUL-2001; 2001US-00902208.

XX

PR 14-MAY-2002; 2002US-00145682.

XX

PA (TSAI/) TSAI D.

XX

PI Tsai D;

XX

DR WPI; 2005-038780/04.

XX

PT New compound or fetuin polypeptides useful for treating colon and

XX

PT prostate cancer by causing apoptosis in colon and prostate cancer cells,

XX

PT thus offering a breakthrough in cancer therapy.

XX

PS Example 7; SEQ ID NO 6; 20pp; English.

XX

CC The invention relates to a novel compound or fetuin polypeptides for the

XX

CC treatment of colon and prostate cancer, where the polypeptide causes

XX

CC apoptosis in colon and prostate cancer cells. A compound or peptide of

XX

CC the invention has cytostatic activity, and may have a use in protein

XX

CC therapy. The fetuin polypeptides are useful for treating colon and

XX

CC prostate cancer, thus offering a breakthrough in cancer therapy. The

XX

CC present sequence represents the rat fetuin peptide fragment (PPF) 300-09,

XX

CC amino acids 300-309 of the full-length fetuin polypeptide.

XX

SQ Sequence 10 AA;

Query Match 93.9%; Score 46; DB 9; Length 10;

Best Local Similarity 90.0%; Pred. No. 0.011;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFGSVASVE 10

Db 1 HTFSGVASVE 10

RESULT 12

ADV44764

ID ADV44764 standard; peptide; 10 AA.

XX

AC ADV44764;

XX

DT 10-MAR-2005 (first entry)
XX Ovine fetuin fragment PPF 300-09 SEQ ID NO:5.
DE fetuin; colon tumor; prostate tumor; neoplasm; apoptosis; cytostatic;
XX protein therapy.
KW Ovis aries.
KW US2004259800-A1.
OS 23-DEC-2004.
XX 05-FEB-2004; 2004US-00772537.
XX 18-DEC-1997; 97US-00993432.
PR 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
PR 14-MAY-2002; 2002US-00145682.
XX (TSAI/) TSAI D.
XX Tsai D;
XX WPI; 2005-038780/04.
XX New compound or fetuin polypeptides useful for treating colon and
PT prostate cancer by causing apoptosis in colon and prostate cancer cells,
PT thus offering a breakthrough in cancer therapy.
XX Example 7; SEQ ID NO 5; 20pp; English.
XX The invention relates to a novel compound or fetuin polypeptides for the
CC treatment of colon and prostate cancer, where the polypeptide causes
CC apoptosis in colon and prostate cancer cells. A compound or peptide of
CC the invention has cytostatic activity, and may have a use in protein
CC therapy. The fetuin polypeptides are useful for treating colon and
CC prostate cancer, thus offering a breakthrough in cancer therapy. The
CC present sequence represents the ovine fetuin peptide fragment (FPF) 300-
CC 09, amino acids 300-309 of the full-length fetuin polypeptide.
XX
SQ Sequence 10 AA;
Query Match 93.9%; Score 46; DB 9; Length 10;
Best Local Similarity 90.0%; Pred. No. 0.011;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 HSFSGVASVE 10
Db :|||||
1 HTFSGVASVE 10
RESULT 13
AEA78929
ID AEA78929 standard; peptide; 18 AA.
XX AEA78929;
AC AEA78929;
XX 11-AUG-2005 (first entry)
DT Bovine Serum Albumin indexed peptide database peptide #145.
XX mass spectrometry; peptide index; protein identification;
KW protein quantitation; protease; high-resolution mass spectrometry;
KW proteomics; genomics; bioinformatics; Bovine Serum Albumin.
XX Bos sp.
OS WO2003054549-A2.
XX 03-JUL-2003.
XX

PF 09-DEC-2002; 2002WO-GB005571.
XX 08-DEC-2001; 2001US-0340460P.
PR 14-MAR-2002; 2002US-0364847P.
XX (MICR-) MICROMASS LTD.
PA Geromanos S, Dongre A, Opiteck G, Silva J;
PI WPI; 2003-569290/53.
XX A method of mass spectrometry, useful in protein identification and
XX quantitation, by mass analyzing the first molecules in the first mixture
PT and accurately determining the mass to charge ratio of the first
PT molecules in the first mixture.
XX Disclosure; Fig 9B; 123pp; English.
XX The invention relates to a novel method of mass spectrometry. The method
CC comprises mass analysing the first molecules in a first mixture and
CC accurately determining the mass to charge ratio of the first molecules in
CC the first mixture. The invention further relates to: generating an index
CC for use in identifying molecules of biological origin by mass
CC spectrometry by accurately determining the masses or mass to charge
CC ratios of molecules comprising peptides resulting from the digestion or
CC fragmentation of a polypeptide or protein; determining a first physico-
CC chemical property other than mass or mass to charge ratio of the
CC molecules comprising peptides; and optionally determining a second,
CC third, fourth and/or fifth physico-chemical property of the molecules
CC comprising peptides; and a mass spectrometer comprising a mass analyser
CC for accurately determining the mass to charge ratio of the first
CC molecules, and means for identifying the first molecules of the basis of
CC at least the first physico-chemical property and the accurately
CC determined mass to charge ratio of the first molecules and optionally on
CC the basis of the second, third, fourth and/or fifth physico-chemical
CC property. The method and spectrometer are useful in protein
CC identification, protein quantitation, proteases, high-resolution mass
CC spectrometry, proteomics, genomics and bioinformatics. This sequence
CC represents a peptide from an indexed peptide database created by the
CC novel mass spectrometry method of the invention.
XX
SQ Sequence 18 AA;
Query Match 93.9%; Score 46; DB 7; Length 18;
Best Local Similarity 90.0%; Pred. No. 0.021;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 HSFSGVASVE 10
Db :|||||
1 HTFSGVASVE 10
RESULT 14
AAB30555
ID AAB30555 standard; peptide; 341 AA.
XX AAB30555;
AC AAB30555;
XX 06-MAR-2001 (first entry)
DT Amino acid sequence of an alpha-2HS-glycoprotein fragment.
XX Human; alpha-2HS-glycoprotein; alpha-2HS; fetuin; alpha-2Z-globulin;
KW plasma glycoprotein; antiinflammatory; tissue damage; ischemia; stroke;
KW myocardial infarction.
XX Bos sp.
OS WO2000060943-A1.
XX 19-OCT-2000.
XX 13-APR-2000; 2000WO-US010002.
XX

XX 13-APR-1999; 99US-0129288P.
 XX (PICO-) PICOWER INST MEDICAL RES.
 XX Tracey KJ, Wang H;
 XX WPI; 2001-006853/01.
 XX Novel methods for treating tissue ischemia or inhibiting tissue damage
 PT associated with ischemia, of the brain and heart in a subject involves
 PT administering human alpha-2HS-glycoprotein.

XX Disclosure; Page 12-13; 22pp; English.

XX The present sequence represents a fragment of the bovine alpha-2HS-
 CC glycoprotein (alpha-2HS) (HS not defined). The polypeptide is also known
 CC as fetuin, alpha-22-globulin. The polypeptide is a plasma glycoprotein.
 CC Alpha-2HS is a major protein occurring in human blood and calciferous
 CC tissues. The polypeptide is an antiinflammatory activity potentiator. It
 CC is used for treating or inhibiting tissue damage caused by ischemia which
 CC is manifest as stroke or as myocardial infarction. Administration of
 CC alpha-2HS was found to suppress production of tumour necrosis factor
 CC (TNF)

XX Sequence 341 AA;

Query Match 93.9%; Score 46; DB 4; Length 341;
 Best Local Similarity 90.0%; Pred. No. 0.56;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 Db 295 HTFSGVASVE 304
 |:|||||||

RESULT 15
 AAW61491
 ID AAW61491 standard; protein; 359 AA.

XX AAW61491;
 XX 21-OCT-1998 (first entry)
 XX Human fetuin glycoprotein type 1.
 XX fetuin; anti-inflammatory; guanyl-hydrazone; glycosylated; cytokine;
 KW alpha 2-HS glycoprotein.
 XX Homo sapiens.

XX WO9830583-A1.

XX 16-JUL-1998.

XX 08-JAN-1998; 98WO-US000390.

XX 08-JAN-1997; 97US-00780311.

XX (PICO-) PICOWER INST MEDICAL RES.

XX Tracey KJ, Wang H;

XX WPI; 1998-399059/34.

XX Complex or combination of guanyl-hydrazone compound - with glycosylated
 PT polypeptide, especially fetuin, providing enhanced anti-inflammatory
 PT activity.
 XX Disclosure; Page 18; 38pp; English.

XX The invention relates to a novel complex which comprises a glycosylated
 CC peptide selected from mammalian fetuin and/or alpha 2-HS glycoprotein,

CC and a therapeutic aromatic or heterocyclic guanyl hydrazone, which is
 CC positively charged at physiological pH. The complex has anti-inflammatory
 CC activity, based on suppression of pro-inflammatory cytokine synthesis in
 CC activated macrophages and other cells (e.g. suppression of TNF-alpha
 CC synthesis in LPS-activated macrophages). The presence of fetuin as a drug
 CC complex or in combination with the therapeutically active small molecule
 CC compound enhances therapeutic activity of the small molecule compound.
 CC The present invention further provides a means for screening for
 CC therapeutically active small molecule compounds by means of binding to
 CC fetuin. The present sequence represents human fetuin glycoprotein
 XX Sequence 359 AA;

Query Match 93.9%; Score 46; DB 2; Length 359;
 Best Local Similarity 90.0%; Pred. No. 0.59;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 Db 313 HTFSGVASVE 322
 |:|||||||

RESULT 16
 AAY07247
 ID AAY07247 standard; peptide; 359 AA.

XX AAY07247;

XX 06-JUL-1999 (first entry)

XX Human fetuin polypeptide #1.

XX Human; fetuin; foetal plasma glycoprotein; miscarriage; pregnancy;
 KW pre-term labour; tumour necrosis factor; TNF; secretion; spermine;
 KW mononuclear cell; spontaneous abortion.

XX Homo sapiens.

XX WO9913897-A1.

XX 25-MAR-1999.

XX 18-SEP-1998; 98WO-US019579.

XX 18-SEP-1997; 97US-00932871.

XX (PICO-) PICOWER INST MEDICAL RES.

XX Tracey KJ, Wang H;

XX WPI; 1999-229402/19.

XX Use of fetuin, a fetal plasma glycoprotein, for prevention of
 PT miscarriages.

XX Claim 2; Page 5; 9pp; English.

XX This sequence represents a human fetuin polypeptide, a foetal plasma
 CC glycoprotein, which is used to help prevent miscarriages during
 CC pregnancy, and for treating pre-term labour during pregnancy. Fetuin acts
 CC by suppressing tumour necrosis factor (TNF) secretion by spermine. TNF is
 CC secreted by mononuclear cells, and increased levels result in spontaneous
 CC abortion

XX Sequence 359 AA;

Query Match 93.9%; Score 46; DB 2; Length 359;
 Best Local Similarity 90.0%; Pred. No. 0.59;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 HSFSGVASVE 10
 Db 313 HTFSGVASVE 322
 |:|||||||

```

RESULT 17
ID AAY56990 standard; protein; 359 AA.
XX
XX AAY56990;
XX AC
XX 08-MAY-2000 (first entry)
DT
XX Bovine fetuin polypeptide.
DE
XX Glial Growth Factor 2; GGF2; protein expression; fetuin; bovine.
XX
XX Bos sp.
OS
XX Key Location/Qualifiers
FH Peptide 1..18
FT /note= "signal peptide"
FT Protein 19..359
FT /note= "mature protein"
XX
XX WO200006713-A2.
PN
XX 10-FEB-2000.
PD
XX 08-JUL-1999; 99WO-US015367.
PF
XX 28-JUL-1998; 98US-00124605.
PR
XX (FARB ) BAYER CORP.
PA
XX Chan SY, Tran V, Cheng S;
PI
XX WPI: 2000-195287/17.
DR
XX N-PSDB; AAY56932.
XX
XX Method for isolating a desired protein from a mammalian host cell, using
PT an expression vector containing a fetuin gene, useful for production of
PT Glial Growth Factor 2.
XX
XX Example 1; Page 30-32; 40pp; English.
XX
XX The invention relates to methods and constructs for protein expression,
CC in particular, the expression of Glial Growth Factor 2 (GGF2). The method
CC comprises transforming a mammalian host cell with an expression vector
CC containing an expressible mammalian fetuin gene and transforming the same
CC mammalian host cell with an expression vector containing an expressible
CC gene which encodes the desired protein, culturing the transformed host
CC cells and isolating the desired protein. The present sequence represents
CC a bovine fetuin polypeptide
XX
XX Sequence 359 AA;
Query Match 93.9%; Score 46; DB 3; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.59;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db |:|||||
313 HTFSGVASVE 322

RESULT 18
ID ABB78019 standard; protein; 359 AA.
XX
XX ABB78019;
XX AC
XX 22-OCT-2002 (first entry)
DT
XX Bovine alpha2-Heremans Schmid Glycoprotein (AHSG).
DE
XX
XX Human; alpha2-Heremans Schmid Glycoprotein; AHSG; chromosome 3q27;
KW insulin; autophosphorylation; insulin receptor; insulin sensitivity;
KW insulin receptor tyrosine kinase; IR-TK; insulin signal transduction;
KW obesity; insulin resistance; body weight; body fat.
XX
XX Bos sp.
OS
XX Key Location/Qualifiers
FH Peptide 1..18
FT /note= "signal peptide"
FT Protein 19..359
FT /note= "mature protein"
XX
XX WO200239923-A2.
PN
XX 23-MAY-2002.
PD
XX 29-OCT-2001; 2001WO-US042832.
PF
XX 27-OCT-2000; 2000US-0243442P.
PR
XX (UYWA-) UNIV WAYNE STATE.
PA
XX Grunberger G, Mathews ST, Jen KC, Goustin AS, Srinivas PR;
PI
XX WPI: 2002-590447/63.
DR
XX Inhibiting alpha 2-Heremans Schmid Glycoprotein activity, augmenting
PT phosphorylation/tyrosine kinase activity of insulin receptors, or
PT treating obesity and insulin resistance, by inhibiting AHSG activity in
PT cells.
XX
XX Claim 9; Page 14-15; 70pp; English.
XX
XX The present sequence represents a bovine alpha2-Heremans Schmid
CC Glycoprotein (AHSG). The human Ahsg gene is located on chromosome 3q27.
CC AHSG inhibits insulin-induced autophosphorylation of the insulin receptor
CC and insulin receptor tyrosine kinase (IR-TK) activity. Genetic ablation
CC of the Ahsg gene enhances insulin signal transduction and increases whole
CC body insulin sensitivity. The phosphorylation status of AHSG is critical
CC for IR-TK inhibition. The human AHSG protein exists in 2 variant forms.
CC Variant AHSG*1 (ABB7014) has a Thr at position 248 and Thr at position
CC 256. Variant AHSG*2 (ABB78015) has a Met at position 248 and Ser at
CC position 256. Inhibition of AHSG activity in a cell augments
CC phosphorylation or tyrosine kinase activity of insulin receptors in
CC liver/muscle cell. AHSG modulators can therefore be used for treating
CC obesity and insulin resistance, increasing insulin sensitivity,
CC preventing/diminishing effect of high-fat diet on body weight gain, or
CC lowering total body fat content
XX
XX Sequence 359 AA;
Query Match 93.9%; Score 46; DB 5; Length 359;
Best Local Similarity 90.0%; Pred. No. 0.59;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db |:|||||
313 HTFSGVASVE 322

RESULT 19
ID ABU63699 standard; peptide; 10 AA.
XX
XX ABU63699;
XX AC
XX 11-OCT-2003 (first entry)
DT
XX Mouse fetuin apoptosis-inducing peptide fragment.
DE
XX
XX Mouse; apoptosis; fetuin; cancer; alpha-2-Human serum glycoprotein;
KW alpha-2-HS glycoprotein; foetal protein; tissue remodelling; cell death;
KW embryonic development; supercharged zinc alpha 2-HS glycoprotein; HT-29;
KW colon cancer; LNCaP; prostate cancer; Hep G2; Hepatoma; cytostatic;

```

KW apoptosis inducer.
XX Mus sp.
OS US2003087809-A1.
FN 08-MAY-2003.
XX 08-OCT-2002; 2002US-00367706.
PF 18-DEC-1997; 97US-00993432.
XX 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
PR 14-MAY-2002; 2002US-00145682.
XX (TSAI/) TSAI D.
FA Tsai D;
XX WPI; 2003-567578/53.
XX Process for inducing apoptosis in cancer cells involves use of alpha-2-human serum glycoprotein or its peptide fragment.
XX Disclosure; Page 11; 27pp; English.
XX The invention discloses a method for the induction of apoptosis in cancer cells which involves the administration of alpha-2-Human serum (HS) glycoprotein or its peptide fragment to the cancer cells. Alpha-2-HS glycoprotein is a homologue of bovine fetuin, which is a mainly foetal protein and has been shown to control tissue remodelling and physiological cell death during embryonic development, suggesting that it may contain an activity for inducing apoptosis. Methods are also disclosed for the preparation of supercharged zinc alpha 2-HS glycoprotein from alpha 2-HS glycoprotein, which exhibited an increased apoptotic activity. The method is used for inducing apoptosis in cancer cells and treating the cancer. The alpha-2-HS, which has been overloaded with zinc, as well as its fragments, exhibits selectivity for inducing apoptosis in HT-29 (colon cancer), LNCaP (prostate cancer) and Hep G2 (Hepatoma) cells, and does not affect C2D18 CO (normal colon) cells. The sequence presented is the mouse fetuin apoptosis-inducing peptide fragment
XX
SQ Sequence 10 AA;
Query Match 77.6%; Score 38; DB 6; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.51;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Qy 1 HSPSGVASVE 10
Db 1 HAFSPVASVE 10
RESULT 20
ADA26734
ID ADA26734 standard; peptide; 10 AA.
XX ADA26734;
AC
XX 20-NOV-2003 (first entry)
DT
XX Mouse fetuin peptide fragment (FPF).
DE
XX Mouse; colon cancer; prostate cancer; zinc-charged bovine fetuin; fetuin; fetuin peptide fragment; FPF; apoptosis.
KW
XX Mus sp.
OS
XX US2003027767-A1.
FN
XX 06-FEB-2003.
PD

XX 14-MAY-2002; 2002US-00145682.
PF 18-DEC-1997; 97US-00993432.
XX 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
XX (TSAI/) TSAI D.
FA Tsai D;
XX WPI; 2003-615747/58.
XX New compound comprising peptide fragment derived from specially prepared zinc-charged bovine fetuin, useful for treating colon and prostate cancer, by causing apoptosis in colon cancer and prostate cancer cells.
XX Claim 2; Page 13; 20pp; English.
XX The invention relates to a compound for treatment of colon and prostate cancer produced from a peptide fragment derived from specially prepared zinc-charged bovine fetuin, where the peptide fragment corresponds to amino acid residues 300-309 of fetuin (referred to as fetuin peptide fragment (FPF 300-309)), and human or mouse peptides that correspond to FPF 300-309. The human FPF causes apoptosis in colon cancer cells and prostate cancer cells. The invention also relates to preparing a polypeptide having apoptotic activity isolated from fetuin comprising incubating fetuin in solution with a chelating agent, isolating naked CC fetuin, incubating the naked fetuin in solution with zinc, isolating zinc CC charged fetuin from the solution, drying the zinc charged fetuin, CC dissolving the dried zinc charged fetuin in water to form a solution and CC isolating from the solution the filtrates that have been predetermined to have apoptotic activity in cancer cells. The compound is useful for CC treating prostate or colon cancer by inducing apoptosis of the cancerous CC cells. This sequence represents a mouse fetuin fragment of the invention.
XX
SQ Sequence 10 AA;
Query Match 77.6%; Score 38; DB 6; Length 10;
Best Local Similarity 80.0%; Pred. No. 0.51;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Qy 1 HSPSGVASVE 10
Db 1 HAFSPVASVE 10
RESULT 21
ADV44766
ID ADV44766 standard; peptide; 10 AA.
XX ADV44766;
AC
XX 10-MAR-2005 (first entry)
DT
XX Murine fetuin fragment FPF 300-09 SEQ ID NO:7.
DE
XX fetuin; colon tumor; prostate tumor; neoplasm; apoptosis; cytostatic; protein therapy.
KW
XX Mus sp.
OS
XX US2004259800-A1.
FN
XX 23-DEC-2004.
PD
XX 05-FEB-2004; 2004US-00772537.
PF
XX 18-DEC-1997; 97US-00993432.
PR 08-SEP-1998; 98US-00149878.
PR 07-OCT-1999; 99US-00414136.
PR 09-JUL-2001; 2001US-00902208.
PR

PR 14-MAY-2002; 2002US-00145682.
 PA (TSAI/) TSAI D.
 XX
 XX Tsai D;
 XX
 XX WPI; 2005-0308780/04.
 XX
 XX New compound or fetuin polypeptides useful for treating colon and
 PT prostate cancer by causing apoptosis in colon and prostate cancer cells,
 PT thus offering a breakthrough in cancer therapy.
 XX
 XX Claim 11; SEQ ID NO 7; 20pp; English.
 XX
 XX The invention relates to a novel compound or fetuin polypeptides for the
 CC treatment of colon and prostate cancer, where the polypeptide causes
 CC apoptosis in colon and prostate cancer cells. A compound or peptide of
 CC the invention has cytostatic activity, and may have a use in protein
 CC therapy. The fetuin polypeptides are useful for treating colon and
 CC prostate cancer, thus offering a breakthrough in cancer therapy. The
 CC present sequence represents the murine fetuin peptide fragment (FPF) 300-
 CC 09, amino acids 300-309 of the full-length fetuin polypeptide.
 XX
 XX Sequence 10 AA;
 SQ
 Query Match 77.6%; Score 38; DB 9; Length 10;
 Best Local Similarity 80.0%; Pred. No. 0.51;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 QY 1 HSPFSGVASVE 10
 DB |::|||
 1 HAFSPVASVE 10
 RESULT 22
 ABB78017
 ID ABB78017 standard; protein; 346 AA.
 AC ABB78017;
 XX
 XX 22-OCT-2002 (first entry)
 DT
 XX Murine alpha2-Heremans Schmid Glycoprotein (AHSG).
 DE
 XX Human; alpha2-Heremans Schmid Glycoprotein; AHSG; chromosome 3q27;
 KW insulin; autophosphorylation; insulin receptor; insulin sensitivity;
 KW insulin receptor tyrosine kinase; IR-TK; insulin signal transduction;
 KW obesity; insulin resistance; body weight; body fat.
 XX
 OS Mus sp.
 XX
 XX WO200239923-A2.
 PN
 XX 23-MAY-2002.
 PD
 XX 29-OCT-2001; 2001WO-US042832.
 PF
 XX 27-OCT-2000; 2000US-0243442P.
 PR
 XX (UYWA-) UNIV WAYNE STATE.
 PA
 XX Grunberger G, Mathews ST, Jen KC, Goustin AS, Srinivas PR;
 PI WPI; 2002-590447/63.
 XX
 XX Inhibiting alpha 2-Heremans Schmid Glycoprotein activity, augmenting
 PT phosphorylation/tyrosine kinase activity of insulin receptors, or
 PT treating obesity and insulin resistance, by inhibiting AHSG activity in
 PT cells.
 XX
 XX Claim 9; Page 14; 70pp; English.
 PS
 XX The present sequence represents a murine alpha2-Heremans Schmid

CC Glycoprotein (AHSG). The human Ahsg gene is located on chromosome 3q27.
 CC AHSG inhibits insulin-induced autophosphorylation of the insulin receptor
 CC and insulin receptor tyrosine kinase (IR-TK) activity. Genetic ablation
 CC of the Ahsg gene enhances insulin signal transduction and increases whole
 CC body insulin sensitivity. The phosphorylation status of AHSG is critical
 CC for IR-TK inhibition. The human AHSG protein exists in 2 variant forms.
 CC Variant AHSG*1 (ABB7014) has a Thr at position 248 and Thr at position
 CC 256. Variant AHSG*2 (ABB78015) has a Met at position 248 and Ser at
 CC position 256. Inhibition of AHSG activity in a cell augments
 CC phosphorylation or tyrosine kinase activity of insulin receptors in
 CC liver/muscle cell. AHSG modulators can therefore be used for treating
 CC obesity and insulin resistance, increasing insulin sensitivity,
 CC preventing/diminishing effect of high-fat diet on body weight gain, or
 CC lowering total body fat content
 XX
 SQ Sequence 346 AA;
 Query Match 77.6%; Score 38; DB 5; Length 346;
 Best Local Similarity 80.0%; Pred. No. 28;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 QY 1 HSPFSGVASVE 10
 DB |::|||
 303 HAFSPVASVE 312
 RESULT 23
 ABB78018
 ID ABB78018 standard; protein; 352 AA.
 AC ABB78018;
 XX
 XX 22-OCT-2002 (first entry)
 DT
 XX Rat alpha2-Heremans Schmid Glycoprotein (AHSG).
 DE
 XX Human; alpha2-Heremans Schmid Glycoprotein; AHSG; chromosome 3q27;
 KW insulin; autophosphorylation; insulin receptor; insulin sensitivity;
 KW insulin receptor tyrosine kinase; IR-TK; insulin signal transduction;
 KW obesity; insulin resistance; body weight; body fat.
 XX
 OS Rattus sp.
 XX
 XX WO200239923-A2.
 PN
 XX 23-MAY-2002.
 PD
 XX 29-OCT-2001; 2001WO-US042832.
 PF
 XX 27-OCT-2000; 2000US-0243442P.
 PR
 XX (UYWA-) UNIV WAYNE STATE.
 PA
 XX Grunberger G, Mathews ST, Jen KC, Goustin AS, Srinivas PR;
 PI WPI; 2002-590447/63.
 XX
 XX Inhibiting alpha 2-Heremans Schmid Glycoprotein activity, augmenting
 PT phosphorylation/tyrosine kinase activity of insulin receptors, or
 PT treating obesity and insulin resistance, by inhibiting AHSG activity in
 PT cells.
 XX
 XX Claim 9; Page 14; 70pp; English.
 PS
 XX The present sequence represents a rat alpha2-Heremans Schmid Glycoprotein
 CC (AHSG). The human Ahsg gene is located on chromosome 3q27. AHSG inhibits
 CC insulin-induced autophosphorylation of the insulin receptor and insulin
 CC receptor tyrosine kinase (IR-TK) activity. Genetic ablation of the Ahsg
 CC gene enhances insulin signal transduction and increases whole body
 CC insulin sensitivity. The phosphorylation status of AHSG is critical for
 CC IR-TK inhibition. The human AHSG protein exists in 2 variant forms.
 CC Variant AHSG*1 (ABB7014) has a Thr at position 248 and Thr at position
 CC 256. Variant AHSG*2 (ABB78015) has a Met at position 248 and Ser at

CC position 256. Inhibition of AHSK activity in a cell augments
CC phosphorylation or tyrosine kinase activity of insulin receptors in
CC liver/muscle cell. AHSK modulators can therefore be used for treating
CC obesity and insulin resistance, increasing insulin sensitivity,
CC preventing/diminishing effect of high-fat diet on body weight gain, or
CC lowering total body fat content
XX
SQ Sequence 352 AA;

Query Match 77.6%; Score 38; DB 5; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPGVSVE 10
|:|:|:|:|:|
Db 306 HAFSPVASVE 315

RESULT 24
ID ADD48974 standard; protein; 352 AA.
XX
AC ADD48974;
XX
XX
DT 02-DEC-2004 (revised)
DT 29-JAN-2004 (first entry)
XX
DE Rat Protein A32827, SEQ ID NO 14686.
XX
XX Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
KW
XX Rattus norvegicus.
OS Unidentified.
OS
XX WO2003016475-A2.
XX
XX PD 27-FEB-2003.
XX
XX PF 14-AUG-2002; 2002WO-US025765.
XX
XX PR 14-AUG-2001; 2001US-0312147P.
XX 01-NOV-2001; 2001US-0346382P.
XX PR 26-NOV-2001; 2001US-0333347P.
XX
XX FA (GEO) GEN HOSPITAL CORP.
XX FA (FARB) BAYER AG.
XX
XX PI Woolf C, D'urso D, Befort K, Costigan M;
XX
XX DR WPI; 2003-268312/26.
XX DR GENBANK; A32827.
XX
XX PT New composition comprising two or more isolated polypeptides, useful for
XX PT preparing a medicament for treating pain in an animal.
XX
XX PS Example 1; Page; 1017pp; English.
XX
CC The invention discloses a composition comprising two or more isolated rat
CC or human polynucleotides or a polynucleotide which represents a fragment,
CC derivative or allelic variation of the nucleic acid sequence. Also
CC claimed are a vector comprising the novel polynucleotide, a host cell
CC comprising the vector, a method for identifying a nucleotide sequence
CC which is differentially regulated in an animal subjected to pain and a
CC kit to perform the method, an array, a method for identifying an agent
CC that increases or decreases the expression of the polynucleotide sequence
CC that is differentially expressed in neuronal tissue of a first animal
CC subjected to pain, a method for identifying a compound which regulates
CC the expression of a polynucleotide sequence which is differentially
CC expressed in an animal subjected to pain, a method for identifying a
CC compound that regulates the activity of one or more of the
CC polynucleotides, a method for producing a pharmaceutical composition, a
CC method for identifying a compound or small molecule that regulates the

CC activity in an animal of one or more of the polypeptides given in the
CC specification, a method for identifying a compound useful in treating
CC pain and a pharmaceutical composition comprising the one or more
CC polypeptides or their antibodies. The polynucleotide or the compound that
CC modulates its activity is useful for preparing a medicament for treating
CC pain (e.g. spinal segmental nerve injury (Chung), chronic constriction
CC injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene
CC therapy). The sequence presented is a rat protein (described in Table 3
CC of the specification) which is differentially expressed during pain.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic form directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 352 AA;

Query Match 77.6%; Score 38; DB 7; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSPGVSVE 10
|:|:|:|:|:|
Db 306 HAFSPVASVE 315

RESULT 25
ADP30521
ID ADF30521 standard; protein; 352 AA.
XX
AC ADF30521;
XX
XX DT 12-FEB-2004 (first entry)
XX
XX DE Rat angiogenesis modulating protein #53.
XX
XX KW rat; angiogenesis; angiogenesis modulating protein;
KW retinal neovascularisation; choroidal neovascularisation;
KW chronic inflammation; myocardial ischaemia; stroke;
KW coronary artery disease; peripheral vascular disease.
XX
XX OS Rattus norvegicus.
XX
XX PN US2003162706-A1.
XX
XX PD 28-AUG-2003.
XX
XX PF 10-DEC-2002; 2002US-00316253.
XX
XX PR 08-FEB-2002; 2002US-0355295P.
XX PR 26-JUN-2002; 2002US-0391758P.
XX
XX PA (PROC) PROCTER & GAMBLE CO.
XX
XX PI Peters KG, Thompson LJ, Wang F, Greis KD;
XX WPI; 2003-711557/67.
XX DR N-PSDB; ADF30520.
XX
XX PT Treating angiogenesis-mediated disorder, e.g., retinal or choroidal
PT neovascularization or diseases associated with chronic inflammation,
PT myocardial ischemia, stroke, coronary artery disease or peripheral
PT vascular disease.
XX
XX PS Claim 2; SEQ ID NO 84; 26pp; English.
XX
CC The invention relates to a method of treating an angiogenesis-mediated
CC disorder in a subject. The method is useful for treating angiogenesis-
CC mediated disorder, e.g., retinal or choroidal neovascularisation or
CC diseases associated with chronic inflammation, myocardial ischaemia,
CC stroke, coronary artery disease or peripheral vascular disease. The
CC present sequence is used in the exemplification of the invention.
XX
XX SQ Sequence 352 AA;

Query Match 77.6%; Score 38; DB 7; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|:|:|:|:|:|
Db 306 HAFSPVASVE 315

RESULT 26

ADF30523
ID ADF30523 standard; protein; 352 AA.

XX AC ADF30523;

XX DT 12-FEB-2004 (first entry)

XX DE Rat angiogenesis modulating protein #54.

XX KW rat; angiogenesis; angiogenesis modulating protein;
KW retinal neovascularisation; choroidal neovascularisation;
KW chronic inflammation; myocardial ischaemia; stroke;
KW coronary artery disease; peripheral vascular disease.

XX OS Rattus norvegicus.

XX PN US2003162706-A1.

XX PD 28-AUG-2003.

XX PF 10-DEC-2002; 2002US-00316253.

XX PR 08-FEB-2002; 2002US-0355295P.

XX PT 26-JUN-2002; 2002US-0391758P.

XX PA (PROC) PROCTER & GAMBLE CO.

XX PI Peters KG, Thompson LJ, Wang F, Greis KD;

XX WPI; 2003-711557/67.

XX DR N-PSDB; ADF30522.

XX PT Treating angiogenesis-mediated disorder, e.g., retinal or choroidal
PT neovascularization or diseases associated with chronic inflammation,
PT myocardial ischemia, stroke, coronary artery disease or peripheral
PT vascular disease.

XX PS Claim 2; SEQ ID NO 86; 26pp; English.

XX CC The invention relates to a method of treating an angiogenesis-mediated
CC disorder in a subject. The method is useful for treating angiogenesis-
CC mediated disorder e.g., retinal or choroidal neovascularisation or
CC diseases associated with chronic inflammation, myocardial ischaemia,
CC stroke, coronary artery disease or peripheral vascular disease. The
CC present sequence is used in the exemplification of the invention.

XX SQ Sequence 352 AA;

Query Match 77.6%; Score 38; DB 7; Length 352;
Best Local Similarity 80.0%; Pred. No. 28;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|:|:|:|:|:|
Db 306 HAFSPVASVE 315

RESULT 27

AAE03524
ID AAE03524 standard; protein; 292 AA.

XX AC AAE03524;

XX XX

10-AUG-2001 (first entry)

Human secreted protein variant, SEQ ID NO: 210.

Human; secreted protein; proliferative disorder; cancer; tumour; asthma;
foetal abnormality; developmental abnormality; haematopoietic disorder;
immune system disease; AIDS; autoimmune disease; rheumatoid arthritis;
Parkinson's disease; cognitive disorder; schizophrenia; skin disorder;
psoriasis; sepsis; diabetes; atherosclerosis; cardiovascular disorder;
inflammation; neurological disorder; Alzheimer's disease; food additive;
angiogenic disorder; kidney disorder; gastrointestinal disorder; allergy;
pregnancy-related disorder; endocrine disorder; infection; wound healing;
cell culture; chemotaxis; vulnery; binding partner identification;
gene therapy.

XX OS Homo sapiens.

XX PN WO200132675-A1.

XX PD 10-MAY-2001.

XX PF 25-OCT-2000; 2000WO-US029363.

XX PR 29-OCT-1999; 99US-0162239P.

XX PR 30-JUN-2000; 2000US-0215139P.

XX PA (HUMA-) HUMAN GENOME SCI INC.

XX PI Ruben SM, Komatsoulis GA, Wei P, Baker KP, Young PE;

XX WPI; 2001-328772/34.

XX PT Thirty two human secreted proteins, useful for treating cancers,
PT hyperproliferative disorders, inflammatory disorders, neurological
PT disorders, autoimmune diseases and cardiovascular disorders.

XX PS Disclosure; Page 523; 576pp; English.

XX CC AAD07809-AAD07907 represent cDNAs corresponding to 32 human secreted
CC protein genes, and AAE03427-AAE03523 represent the proteins they encode.
CC AAE03524-AAE03537 represent human secreted protein fragments or variants.
CC The secreted proteins and their genes are useful for preventing, treating
CC or ameliorating medical conditions, e.g., by protein or gene therapy.
CC Pathological conditions can be diagnosed by determining the amount of the
CC new protein in a sample or by determining the presence of mutations in
CC the new genes. Specific uses are described for each of the 32 genes,
CC based on the tissues in which they are most highly expressed, and include
CC developing products for the diagnosis or treatment of proliferative
CC disorders, cancer, tumours, foetal and developmental abnormalities,
CC haematopoietic disorders, diseases of the immune system, AIDS, autoimmune
CC diseases (e.g., rheumatoid arthritis), inflammation, allergies,
CC neurological disorders (e.g., Alzheimer's disease, Parkinson's disease),
CC cognitive disorders, schizophrenia, asthma, skin disorders (e.g.,
CC psoriasis), sepsis, diabetes, atherosclerosis, cardiovascular disorders,
CC angiogenic disorders, kidney disorders, gastrointestinal disorders,
CC pregnancy-related disorders, endocrine disorders, and infectious. The
CC progeny can also be used to aid wound healing and epithelial cell
CC proliferation, to prevent skin aging due to sunburn, to maintain organs
CC before transplantation, for supporting cell culture of primary tissues,
CC to regenerate tissues, to identify their cognate ligands or binding
CC partners, and in chemotaxis, and can be used as a food additive or
CC preservative to modify storage properties. Antibodies specific for a
CC protein of the invention can be used in alleviating symptoms associated
CC with the disorders mentioned above, and in diagnostic immunoassays e.g.,
CC radioimmunoassay or enzyme linked immunosorbent assay (ELISA). The
CC present sequence represents a human secreted protein variant referred to
CC in the disclosure of the invention

XX SQ Sequence 292 AA;

Query Match 75.5%; Score 37; DB 4; Length 292;
Best Local Similarity 60.0%; Pred. No. 37;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
DB 134 HSFAGLASLQ 143

RESULT 28
AAB40380
ID AAB40380 standard; protein; 428 AA.
XX
AC AAB40380;
XX
DT 08-FEB-2001 (first entry)
XX
DE Human ORFX ORF144 polypeptide sequence SEQ ID NO:288.
XX
KW Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW vulnery; antipariatic; antiparkinsonian; nootropic; neuroprotective;
KW anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW antianemic; gene therapy; cancer; proliferative disorder; hypertension;
KW neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW cholesterol ester storage; systemic lupus erythematosus; infection;
KW severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW thrombosis; contraceptive.
XX
OS Homo sapiens.
XX
PN WO200058473-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US008621.
XX
PR 31-MAR-1999; 99US-0127607P.
PR 02-APR-1999; 99US-0127636P.
PR 05-APR-1999; 99US-0127728P.
PR 30-MAR-2000; 2000US-00540763.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Shinkets RA, Leach M;
XX
DR WPI; 2000-602362/57.
DR N-PSDB; AAC74589.
XX
PT Novel nucleic acids and peptides derived from open reading frame X,
PT useful for treating e.g. cancers, proliferative disorders,
PT neurodegenerative disorders and cardiovascular disease.
XX
PS Claim 11; Page 584-585; 5507pp; English.
XX
CC Which 74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC sequences have activities such as: cytostatic; hepatotropic; vulnery;
CC antipariatic; antiparkinsonian; nootropic; neuroprotective; osteopathic;
CC anticonvulsant; antiarthritic; immunosuppressant; immunostimulant;
CC cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive;
CC dermatological; immunosuppressive; antiinflammatory; antibacterial;
CC antiviral; antifungal; antirheumatic; antithyroid; and antianemic. The
CC sequences can be used for determining the presence of or predisposition
CC to, or preventing or treating pathological conditions associated with an
CC ORFX-associated disorder. The nucleic acids can be used to express ORFX
CC proteins in gene therapy vectors. The proteins and nucleic acids may be
CC used to treat cancers, proliferative disorders, neurodegenerative
CC disorders, osteoarthritis, graft vs host disease, cardiovascular disease,
CC diabetes mellitus, hypertension, hypothyroidism, cholesterol ester
CC storage, systemic lupus erythematosus, severe combined immunodeficiency

CC (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune
CC disorders, asthma, allergies, aplastic anaemia, burns, wounds, bone and
CC cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to
CC enhance coagulation; to inhibit thrombosis; and as a contraceptive
XX
SQ Sequence 428 AA;
Query Match 75.5%; Score 17; DB 3; Length 428;
Best Local Similarity 60.0%; Pred. No. 57;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
QY 1 HSPSGVASVE 10
DB 377 HSYSGVSSLD 386

RESULT 29
ADN72605
ID ADN72605 standard; protein; 460 AA.
XX
AC ADN72605;
XX
DT 15-JUL-2004 (first entry)
XX
DE Thale cress protein upregulated in E2Fa/Dpa expressing plants SeqID 500.
XX
KW plant; transgenic; E2Fa/Dpa transcription factor; growth regulator;
KW animal feed product; thale cress; cell wall biosynthesis;
KW nitrogen metabolism; carbon metabolism.
XX
OS Arabidopsis thaliana.
XX
PN WO2004035798-A2.
XX
PD 29-APR-2004.
XX
PF 20-OCT-2003; 2003WO-EP011658.
XX
PR 18-OCT-2002; 2002EP-00079408.
XX
PA (CROP-) CROPDESIGN NV.
XX
PI Inze D, De Veylder L, Vlieghe K;
XX
DR WPI; 2004-348466/32.
DR N-PSDB; ADN72604.
XX
PT Altering plant characteristics, useful for producing plants for enzyme or
PT pharmaceutical production comprises modifying in a plant, expression of
PT one or more nucleic acids and/or modifying level or activity of one or
PT more proteins.
XX
PS Claim 1; SEQ ID NO 500; 134pp; English.
XX
CC This invention relates to a novel method for altering one or more plant
CC characteristics. Specifically, it refers to identifying genes that are up
CC - or down-regulated in transgenic plants overexpressing the heterodimeric
CC E2Fa/Dpa transcription factor of Arabidopsis and using these sequences to
CC alter plant characteristics accordingly. The present invention describes
CC generating transgenic plants for the production of growth regulators,
CC enzymes, therapeutics, pharmaceuticals and animal feed products, where
CC the altered plant characteristics are selected from increased yield or
CC biomass, enhanced survival capacity, stress tolerance, plant architecture
CC or physiology, altered endoreplication, biochemistry, signal
CC transduction, storage lipid mobilisation and/or altered photosynthesis,
CC each relative to the corresponding wild type plants. Accordingly, these
CC sequences can also be useful as positive or negative selectable markers
CC during transformation of cells or tissues. The identified genes play a
CC role in a variety of biological processes such as DNA replication, cell
CC wall biosynthesis, nitrogen and/or carbon metabolism or they function as
CC transcription factors. This polypeptide sequence is thale cress protein
CC expressed by a gene upregulated 1.3 fold or more in plants overexpressing
CC the E2Fa/Dpa transcription factor, given in an exemplification of the

```

CC invention.
XX SQ Sequence 460 AA;
Query Match 75.5%; Score 37; DB 8; Length 460;
Best Local Similarity 88.9%; Pred. No. 62;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 SFGSVASVE 10
Db 452 SFGSVASVE 460

RESULT 30
AA13385
ID AAY13385 standard; protein; 713 AA.
XX AC AAY13385;
XX DT 25-JUN-1999 (first entry)
XX DE Amino acid sequence of protein PRO293.
XX KW Secreted protein; transmembrane protein; human; enterocolitis;
XX KW Zollinger-Ellison syndrome; gastrointestinal ulceration;
XX KW congenital microvillus atrophy; skin disease; cell growth;
XX KW abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
XX KW Parkinson's disease; Alzheimer's disease; ALS; neuropathy; fibromodulin;
XX KW dermal scarring; Usher Syndrome; Atrophia areata; anti-thrombotic;
XX KW wound healing; tissue repair.
XX OS Homo sapiens.
XX PN WO9914328-A2.
XX PD 25-MAR-1999.
XX PF 16-SEP-1998; 98WO-US019330.
XX PR 17-SEP-1997; 97US-0059113P.
XX PR 17-SEP-1997; 97US-0059115P.
XX PR 17-SEP-1997; 97US-0059117P.
XX PR 17-SEP-1997; 97US-0059119P.
XX PR 17-SEP-1997; 97US-0059121P.
XX PR 17-SEP-1997; 97US-0059122P.
XX PR 17-SEP-1997; 97US-0059184P.
XX PR 18-SEP-1997; 97US-0059463P.
XX PR 18-SEP-1997; 97US-0059266P.
XX PR 15-OCT-1997; 97US-0062125P.
XX PR 17-OCT-1997; 97US-0062285P.
XX PR 21-OCT-1997; 97US-0062287P.
XX PR 24-OCT-1997; 97US-0063486P.
XX PR 24-OCT-1997; 97US-0062814P.
XX PR 24-OCT-1997; 97US-0062816P.
XX PR 24-OCT-1997; 97US-0063045P.
XX PR 24-OCT-1997; 97US-0063120P.
XX PR 24-OCT-1997; 97US-0063121P.
XX PR 24-OCT-1997; 97US-0063127P.
XX PR 24-OCT-1997; 97US-0063128P.
XX PR 27-OCT-1997; 97US-0063327P.
XX PR 27-OCT-1997; 97US-0063329P.
XX PR 28-OCT-1997; 97US-0063541P.
XX PR 28-OCT-1997; 97US-0063542P.
XX PR 28-OCT-1997; 97US-0063544P.
XX PR 28-OCT-1997; 97US-0063549P.
XX PR 28-OCT-1997; 97US-0063550P.
XX PR 28-OCT-1997; 97US-0063564P.
XX PR 29-OCT-1997; 97US-0063435P.
XX PR 29-OCT-1997; 97US-0063704P.
XX PR 29-OCT-1997; 97US-0063732P.
XX PR 29-OCT-1997; 97US-0063734P.
XX PR 29-OCT-1997; 97US-0063735P.
XX PR 29-OCT-1997; 97US-0063738P.

PR 29-OCT-1997; 97US-0064215P.
PR 31-OCT-1997; 97US-0063870P.
PR 31-OCT-1997; 97US-0064103P.
PR 03-NOV-1997; 97US-0064248P.
PR 07-NOV-1997; 97US-0064809P.
PR 12-NOV-1997; 97US-0065186P.
PR 17-NOV-1997; 97US-0065846P.
PR 18-NOV-1997; 97US-0065693P.
PR 21-NOV-1997; 97US-0066120P.
PR 21-NOV-1997; 97US-0066364P.
PR 24-NOV-1997; 97US-0066453P.
PR 24-NOV-1997; 97US-0066466P.
PR 24-NOV-1997; 97US-0066511P.
PR 24-NOV-1997; 97US-0066770P.
PR 24-NOV-1997; 97US-0066772P.
PR 25-NOV-1997; 97US-0066840P.
XX (GETH ) GENENTECH INC.
XX Wood WI, Gurney AL, Goddard A, Pennica D, Chen J, Yuan J;
XX WPI; 1999-229533/19.
XX N-PSDB; AAM52256.
XX New isolated human genes and polypeptides used in, e.g. treatment of
XX gastrointestinal ulceration.
XX Claim 12; Fig 86; 320pp; English.
XX AAY13344-403 represent secreted and transmembrane human proteins. The
XX cDNA sequences are obtained from cDNA libraries, prepared from fetal
XX lung, fetal kidney, fetal brain, fetal liver and fetal retina. The
XX encoded polypeptides have specific uses based on their homology to known
XX polypeptides, e.g. PRO211 and PRO217 can be used for disorders associated
XX with the preservation and maintenance of gastrointestinal mucosa and the
XX repair of acute and chronic mucosal lesions (e.g. enterocolitis,
XX Zollinger-Ellison syndrome, gastrointestinal ulceration and congenital
XX microvillus atrophy), skin diseases associated with abnormal keratinocyte
XX differentiation (e.g. psoriasis, epithelial cancers such as lung squamous
XX cell carcinoma of the vulva and gliomas), potent effects on cell growth
XX and development, diseases related to growth or survival of nerve cells
XX including Parkinson's disease, Alzheimer's disease, neuropathies or
XX cancer. PRO265 can be used as for fibromodulin, e.g. for reducing dermal
XX scarring. PRO264 can be used as a target for anti-tumor drugs. PRO533 may
XX be used in the treatment of Usher Syndrome or Atrophia areata; PRO269 can
XX be used as an anti-thrombotic agent; PRO287 polypeptides and portions may
XX have therapeutic applications in wound healing and tissue repair; PRO317
XX can be used for treating problems of the kidney, uterus, endometrium,
XX blood vessels, or related tissue, e.g. in the heart of genital tract
XX SQ Sequence 713 AA;
Query Match 75.5%; Score 37; DB 2; Length 713;
Best Local Similarity 60.0%; Pred. No. 18+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
Db 135 HSFAGLASLQ 144

RESULT 31
ADC78557
ID ADC78557 standard; protein; 713 AA.
XX AC ADC78557;
XX DT 01-JAN-2004 (first entry)
XX DE Human PRO293 protein.
XX KW antiinflammatory; antiulcer; cytostatic; antipsoriatic; antiparkinsonian;
XX KW nootropic; neuroprotective; vasotropic; chemotactic; angiogenic;

```

KW neurotrophic; osteopathic; antiasthmatic; antiarthritic; antirheumatic;
 KW antiarteriosclerotic; cardiant; antidiabetic; cerebroprotective;
 KW thrombolytic; immunomodulator; enterocolitis; Zollinger-Ellison syndrome;
 KW gastrointestinal ulceration; psoriasis; cancer; Parkinson's disease;
 KW Alzheimer's; ALS; neuropathy; dermal scarring; wound healing;
 KW nerve repair; thrombosis; bone; cartilage formation; angiogenesis;
 KW asthma; rheumatoid arthritis; multiple sclerosis; inflammatory disorder;
 KW atherosclerosis; cardiac injury; infertility; premature aging; AIDS;
 KW diabetes; stroke; gene therapy; transgenic; PRO; human.

XX Homo sapiens.
 OS WO200015796-A2.
 XX 23-MAR-2000.
 XX 15-SEP-1999; 99WO-US021090.
 XX 16-SEP-1998; 98WO-US019330.
 XX (GETH) GENENTECH INC.
 XX Chen J, Goddard A, Gurney AL, Hillan K, Pennica D, Wood WI;
 PI Yuan J;
 XX WPI; 2000-271434/23.
 DR N-PSDB; ADC78699.
 XX

PT Novel nucleic acids encoding secreted and transmembrane polypeptides with
 PT homology, e.g. to growth and cancer-associated antigens.

PS Claim 12; SEQ ID NO 245; 355pp; English.
 XX The invention relates to a novel nucleic acid encoding a PRO polypeptide.
 CC The polypeptides and polynucleotides of the invention may be useful as
 CC research tools and as therapeutics for treating enterocolitis, Zollinger-
 CC Ellison syndrome, gastrointestinal ulceration, psoriasis, cancer,
 CC Parkinson's disease, Alzheimer's disease, ALS, neuropathies, dermal
 CC scarring and wound healing, nerve repair, thrombosis, bone and/or
 CC cartilage formation, angiogenesis, asthma, rheumatoid arthritis, multiple
 CC sclerosis, inflammatory disorders, atherosclerosis, cardiac injury,
 CC infertility, premature aging, AIDS, diabetes complications and stroke.
 CC The molecules may also be utilised during gene therapy procedures and
 CC transgenic animal production. The current sequence is that of the human
 CC PRO protein of the invention.

XX Sequence 713 AA;
 SQ Query Match 75.5%; Score 37; DB 3; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02; Mismatches 0; Indels 0; Gaps 0;
 Matches 6; Conservative 4;

QY 1 HSFSGVASVE 10
 |||:|:|:
 Db 135 HSFAGLASLQ 144

RESULT 32
 AAB80253
 ID AAB80253 standard; protein; 713 AA.
 XX AAB80253;
 XX 24-APR-2001 (first entry)
 XX Human PRO293 protein.
 DE Human; PRO; dermatological; antipsoriatic; cytostatic; antiinflammatory;
 KW antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant;
 KW antiangiogenic; vasotropic; antiasthmatic; antirheumatic; cancer;
 KW antiarthritic; antinfertility; antidiabetic; antiviral; diabetes;
 KW ophthalmological; gene therapy; skin disease; gastrointestinal disorder;
 KW ischaemia; inflammation.

XX Homo sapiens.
 OS WO200104311-A1.
 XX 18-JAN-2001.
 XX 22-FEB-2000; 2000WO-US004414.
 XX 07-JUL-1999; 99US-0143048P.
 XX 26-JUL-1999; 99US-0145698P.
 XX 08-JUL-1999; 99US-0146222P.
 XX 28-SEP-1999; 99WO-US020594.
 XX 13-SEP-1999; 99WO-US020944.
 XX 15-SEP-1999; 99WO-US021090.
 XX 15-SEP-1999; 99WO-US021547.
 XX 05-OCT-1999; 99WO-US023089.
 XX 29-NOV-1999; 99WO-US028214.
 XX 30-NOV-1999; 99WO-US028313.
 XX 02-DEC-1999; 99WO-US028564.
 XX 16-DEC-1999; 99WO-US028565.
 XX 20-DEC-1999; 99WO-US030095.
 XX 20-DEC-1999; 99WO-US030911.
 XX 05-JAN-2000; 2000WO-US000219.
 XX (GETH) GENENTECH INC.
 XX Ashkenazi AJ, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi CJ, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX WPI; 2001-081051/09.
 DR N-PSDB; AAF72414.
 XX Sixty one nucleic acids encoding PRO polypeptides which are useful in the
 PT treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung squamous
 PT cell carcinoma) and neurodegenerative diseases (e.g. Alzheimer's
 PT disease).
 XX Claim 1; Fig 86; 393pp; English.
 XX The present sequence is one of sixty one novel secreted and transmembrane
 CC PRO polypeptides. The PRO polypeptides are useful for treating skin
 CC diseases (e.g. psoriasis), cancers (e.g. lung squamous cell carcinoma),
 CC gastrointestinal disorders (e.g. enterocolitis), neurodegenerative
 CC diseases (e.g. Alzheimer's disease, Parkinson's disease), wound repair,
 CC cardiovascular disorders (e.g. endometrial bleeding angiogenesis,
 CC ischaemias such as coronary ischaemia, atherosclerosis), inflammatory
 CC disorders (e.g. asthma, rheumatoid arthritis, multiple sclerosis),
 CC infertility, AIDS and diabetes and retinal disorders such as retinitis
 CC pigmentosum. The PRO nucleic acids have applications in molecular
 CC biology, including use as hybridization probes, and in chromosome and
 CC gene mapping
 XX Sequence 713 AA;
 SQ Query Match 75.5%; Score 37; DB 4; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HSFSGVASVE 10
 |||:|:|:
 Db 135 HSFAGLASLQ 144
 RESULT 33
 AABU71631
 ID AABU71631 standard; protein; 713 AA.
 XX AABU71631;
 AC AABU71631;

XX DT 16-JUN-2003 (first entry)
 XX DE Human PRO polypeptide #42.
 XX KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
 KW pathological disorder; cardiac insufficiency disorder; protein secretion;
 KW pancreas; diabetes; gastrointestinal mucosa; mucosal lesion; psoriasis;
 KW skin disease; keratinocyte differentiation; epithelial cancer; tumour;
 KW lung squamous cell carcinoma; epidermoid carcinoma; vulva; glioma;
 KW cytosstatic; cardiant; endocrine; antidiabetic; gastrointestinal;
 KW antiulcer; dermatological; vulnary.
 XX OS Homo sapiens.
 XX PN US2002146709-A1.
 XX PD 10-OCT-2002.
 XX PF 18-JUL-2001; 2001US-00909088.
 XX PR 17-SEP-1997; 97US-0059113P.
 PR 17-SEP-1997; 97US-0059115P.
 PR 17-SEP-1997; 97US-0059117P.
 PR 17-SEP-1997; 97US-0059119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 17-SEP-1997; 97US-0059184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 15-OCT-1997; 97US-0062125P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 24-OCT-1997; 97US-0062814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.
 PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 27-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063542P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063549P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063722P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.

PR 17-SEP-1998; 98WO-US019437.
 PR 01-DEC-1998; 98WO-US025108.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 02-MAR-2000; 2000WO-US005004.
 PR 24-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.

(GETH) GENENTECH INC.

PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kijavini IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WJ;
 XX WPI; 2003-328338/31.
 DR N-PSDB; ACA59098.

Isolated nucleic acid useful for e.g., treating pathological disorders
 encodes a secreted or transmembrane protein.

Claim 12; Fig 86; 473pp; English.

The invention relates to human PRO polypeptides (secreted or
 transmembrane polypeptides) and the polynucleotides encoding them. The
 PRO polypeptides and polynucleotides can be used in treating pathological
 disorders and tumours, in therapeutic treatment of cardiac insufficiency
 disorders and in therapeutic treatment of disorders involving protein
 secretion by the pancreas, including diabetes. They can also be used in
 treating disorders associated with the preservation and maintenance of
 gastrointestinal mucosa and the repair of acute and chronic mucosal
 lesions, and skin diseases associated with abnormal keratinocyte
 differentiation (e.g., psoriasis, epithelial cancers such as lung
 squamous cell carcinoma, epidermoid carcinoma of the vulva and gliomas).
 The sequences can be used as molecular markers for protein
 electrophoresis purposes and can be utilised in protein-protein binding
 assays, biochemical screening assays, immunoassays and cell-based assays.
 This sequence represents a human PRO polypeptide of the invention

Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. NO. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPSGVASVE 10
 |||:|:|:|:|:
 Db 135 HSFAGLASLQ 144

RESULT 34
 ASU71486

ID ABU71486 standard; protein; 713 AA.
 AC ABU71486;
 XX
 DT 10-JUN-2003 (first entry)
 XX
 DE Human PRO polypeptide #42.
 XX
 KW Human; secreted and transmembrane protein; PRO polypeptide; cancer;
 KW Alzheimer's disease; ischaemia; cytostatic; nootropic; vasotropic;
 KW neuroprotective.
 XX
 OS Homo sapiens.
 XX
 PN US2002192659-A1.
 XX
 PD 19-DEC-2002.
 XX
 PF 10-JUL-2001; 2001US-00902853.
 XX
 PR 17-SEP-1997; 97US-00591113P.
 PR 17-SEP-1997; 97US-00591115P.
 PR 17-SEP-1997; 97US-00591117P.
 PR 17-SEP-1997; 97US-00591119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 17-SEP-1997; 97US-0059184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 15-OCT-1997; 97US-0062125P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 21-OCT-1997; 97US-0062814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.
 PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 27-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063542P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063549P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 31-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98WO-US019437.

PR 01-DEC-1998; 98WO-US025108.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 22-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX
 PA (GETH) GENENTECH INC.
 XX
 PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen MB, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy NA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX
 DR WPI; 2003-361832/34.
 DR N-PSDB; ACA58495.
 XX
 PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO245 or
 PT PRO1868, useful in molecular biology, chromosome and gene mapping, in
 PT generating antisense RNA and DNA, and in gene therapy.
 XX
 PS Claim 12; Fig 86; 474pp; English.
 XX
 CC The present invention relates to the isolation of novel human secreted
 CC and transmembrane proteins (PRO polypeptides), and the polynucleotide
 CC sequences encoding them. The polynucleotide sequences are useful in
 CC molecular biology, as hybridisation probes, in chromosome and gene
 CC mapping, in generating antisense RNA and DNA, and in gene therapy. The
 CC polynucleotide sequences may also be used in preparing PRO polypeptides
 CC by recombinant techniques, and in generating either transgenic animals or
 CC knock-out animals which, in turn, are useful in the development and
 CC screening of therapeutically useful reagents. The PRO polypeptides or
 CC their antibodies are useful in preparing a medicament for treating a
 CC condition responsive to the polypeptide or antibody, such as cancer,
 CC Alzheimer's disease or ischaemia, and in various diagnostic assays.
 CC ABU71445-ABU71505 represent human PRO polypeptides of the invention
 XX
 SQ Sequence 713 AA;
 Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HSPGVSASVE 10
 |||:|:|:
 Db 135 HSPAGLASLQ 144
 RESULT 35
 ABU71932
 ID ABU71932 standard; protein; 713 AA.
 XX

AC ABU71932;
 DT 12-JUN-2003 (first entry)
 XX Human secreted/transmembrane protein PRO293.
 DE
 XX Human; secreted protein; transmembrane protein; PRO; gene therapy;
 KW chromosome identification; chromosome marker.
 KW
 XX Homo sapiens.
 XX US2003003530-A1.
 XX 02-JAN-2003..
 XX 11-JUL-2001; 2001US-00904011.
 XX 17-SEP-1997; 97US-00591113P.
 PR 17-SEP-1997; 97US-00591115P.
 PR 17-SEP-1997; 97US-00591117P.
 PR 17-SEP-1997; 97US-00591119P.
 PR 17-SEP-1997; 97US-00591121P.
 PR 17-SEP-1997; 97US-00591122P.
 PR 17-SEP-1997; 97US-00591184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 15-OCT-1997; 97US-0062125P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 24-OCT-1997; 97US-0062814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.
 PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 27-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063542P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063549P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 18-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98WO-US019437.
 PR 01-DEC-1998; 98WO-US025108.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.

PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 16-DEC-1999; 99WO-US028565.
 PR 20-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX

(GETH) GENENTECH INC.

PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mathar JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;

WPI: 2003-329602/31.
 N-PSDB; ACA60202.

New transmembrane polypeptides and nucleic acids encoding the polypeptides, useful in gene therapy, in chromosome identification, as chromosome markers, in generating probes and in tissue typing.

Claim 12; Fig 86; 484pp; English.

The invention relates to an isolated nucleic acid with at least 80% nucleic acid sequence identity to a nucleotide sequence encoding one of 61 secreted/transmembrane polypeptides, or PRO polypeptides or encoding a PRO protein extracellular domain. Also included are a vector comprising the PRO nucleic acid, a host cell comprising the vector, producing a PRO polypeptide (by culturing the host cell for the expression of the PRO polypeptide, and recovering the PRO polypeptide from the cell culture), an isolated PRO polypeptide (having at least 80% sequence identity to: (a) an amino acid sequence selected from the 61 PRO proteins; (b) an amino acid sequence encoded by a nucleic acid molecule deposited with an ATCC number (detailed in the specification); or (c) an extracellular domain of a PRO polypeptide or to a PRO polypeptide lacking its associated signal peptide), a chimeric molecule comprising a PRO polypeptide of fused to a heterologous amino acid sequence, an anti-PRO antibody, detecting a PRO245 or PRO1868 in a sample suspected of containing the polypeptide, linking a bioactive molecule to a cell expressing a PRO245 or PRO1868 and modulating at least one biological activity of a cell expressing a PRO245 or PRO1868. Nucleic acids which encode PRO can be used to generate either transgenic animals or knock-out animals which may be used in the development and screening of therapeutically useful reagents. The nucleic acids may also be used in gene therapy, in chromosome identification, as chromosome markers, or in generating probes. The PRO polypeptides are useful as molecular markers for protein electrophoresis, and the isolated nucleic acids may be used for recombinantly expressing those markers. The PRO polypeptides and nucleic acids may also be used in tissue typing. Anti-PRO antibodies are useful in diagnostic assays for PRO, and in affinity purification of PRO from recombinant cell culture or natural sources. The present sequence represents a PRO protein

Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;

Best Local Similarity 60.0%; Pred. No. 1e+02; Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
 Db 135 HSFAGLASIQ 144

RESULT 36

ABO01815
 ID ABO01815 standard; protein; 713 AA.

XX AC ABO01815;

DT 07-AUG-2003 (first entry)

XX DE Novel human secreted and transmembrane protein PRO293.

XX KW Human; secreted and transmembrane protein; PRO; pharmaceutical;
 KW diagnostic; biosensor; bioreactor; Parkinson's disease;
 KW Alzheimer's disease; inflammation; nephritis; wound healing;
 KW nerve repair; collateral blood vessel formation; cancer;
 KW colorectal cancer; haemorrhage; rheumatoid arthritis; diabetes;
 KW cirrhosis; fibrosis; restenosis; dermal fibrotic condition; keloid;
 KW scarring; ischaemia; stroke; hypertension; heart attack; atherosclerosis;
 KW infertility; gene therapy.

XX OS Homo sapiens.

XX PN US2002197671-A1.

XX PD 26-DEC-2002.

XX PF 17-JUL-2001; 2001US-00907824.

XX PR 17-SEP-1997; 97US-0059113P.
 PR 17-SEP-1997; 97US-0059115P.
 PR 17-SEP-1997; 97US-0059117P.
 PR 17-SEP-1997; 97US-0059119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 17-SEP-1997; 97US-0059184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 15-OCT-1997; 97US-0061252P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 24-OCT-1997; 97US-0062814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.
 PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 27-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063542P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063549P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.

PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 10-SEP-1998; 98WO-US018624.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98WO-US019437.
 PR 01-DEC-1998; 98WO-US025108.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 16-DEC-1999; 99WO-US030311.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.

(GETH) GENENTECH INC.

PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin LJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;

DR WPI: 2003-370793/35.

DR N-PSDB; ACD07602.

XX New genes and secreted and transmembrane polypeptides (e.g. PRO245 or
 PRO335), useful for treating or diagnosing e.g. Alzheimer's disease,
 cancers, hemorrhage, rheumatoid arthritis, diabetes, cirrhosis, ischemia
 or strokes.

PS Claim 12; Fig 86; 482pp; English.

XX The invention describes a new isolated nucleic acid molecule comprising
 CC the full length coding sequence of the DNA deposited with the American
 CC Type Culture Collection (e.g. ATCC Deposit No. 209258), or a sequence
 CC with at least 80% identity to a DNA encoding a PRO polypeptide comprising
 CC any of 61 sequences having 164-1119 amino acids fully defined in the
 CC specification. The PRO polypeptides or polynucleotides are useful as
 CC pharmaceuticals, diagnostics, biosensors or bioreactors. These are
 CC particularly useful for detecting or treating e.g. Parkinson's disease,
 CC Alzheimer's disease, inflammations, nephritis, wound healing, nerve
 CC repair, collateral blood vessel formation, cancers (e.g. colorectal
 CC cancer), haemorrhage (or reduce risk for haemorrhage), rheumatoid
 CC arthritis, diabetes, cirrhosis of the liver, fibrosis of the lungs,
 CC restenosis, dermal fibrotic conditions (e.g. keloids or scarring),

PS Claim 12; Fig 86; 473pp; English.

XX The invention relates to an isolated PRO polypeptide having at least 80% amino acid sequence identity to: (a) any one of 61 fully defined amino acid sequences given in the specification (appearing as ABUS4347-ABUS4407); (b) an amino acid sequence encoded by the nucleotide sequence deposited under American Type Culture Collection (accession numbers listed in the specification); (c) any one of the PRO sequences which lacks its associated signal peptide; (d) an extracellular domain of the PRO polypeptide with its associated signal peptide; or (e) an extracellular domain of the PRO polypeptide which lacks its associated signal peptide. Also include are the nucleic acids encoding the PRO polypeptides, vectors, host cells and anti-PRO antibodies. The PRO polypeptides and nucleic acids are useful in diagnosing or treating enterocolitis, gastrointestinal ulceration, skin diseases associated with abnormal keratinocyte differentiation, e.g. psoriasis or epithelial cancers such as squamous cell carcinoma, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, inflammatory diseases, e.g. rheumatoid arthritis, asthma or multiple sclerosis, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, cancer, diabetic complications, or mutations in general. The polypeptides are also useful for wound repair and associated therapies concerned with re-growth of tissue. The nucleotide sequences may be used as hybridisation probes in chromosome and gene mapping, or in generating antisense RNA and DNA. PRO nucleic acids are also useful in preparing PRO polypeptides, in assays to identify other proteins or molecules involved in binding reaction, to generate transgenic animals or knockout animals, which in turn are useful in the development and screening of therapeutically useful reagents, for chromosome identification, and tissue typing. The PRO polypeptides and nucleic acid molecules are also useful in gene therapy, and as molecular weight markers for protein electrophoresis purposes. The anti-PRO antibodies may be used in diagnostic assays for PRO, or for the affinity purification of PRO from recombinant cell culture or natural sources. The present sequence represents a PRO polypeptide

XX Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;
Beat Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSFSGVASVE 10
|||:|:|:|:
Db 135 HSFAGLSLQ 144

RESULT 38
ABO47403

ID ABO47403 standard; protein; 713 AA.

XX ABO47403;

DT 08-OCT-2003 (first entry)

XX Human secreted/transmembrane polypeptide PRO293.

XX Human; abnormal bleeding; gynaecological disease; asthma; hysterectomy; angiogenesis; coronary ischaemic condition; skin disease;
KW gastrointestinal mucosa disorder; acute mucosal lesion; neuropathy; ALS;
KW chronic mucosal lesion; abnormal keratinocyte differentiation; psoriasis;
KW Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis;
KW uncontrolled cell growth; cancer; blood coagulation cascade; thrombosis;
KW haemorrhage; endometrial bleeding; angiogenesis; wound healing; tumour;
KW tissue repair; rheumatoid arthritis; multiple sclerosis; tissue typing.

OS Homo sapiens.

XX US2003044839-A1.

PN 06-MAR-2003.

XX 10-JUL-2001; 2001US-00902903.

XX 97US-0059113P.
97US-0059115P.
97US-0059117P.
97US-0059119P.
97US-0059121P.
97US-0059123P.
97US-0059184P.
97US-0059263P.
97US-0059266P.
97US-0062125P.
97US-0062285P.
97US-0062287P.
97US-0063486P.
97US-0062814P.
97US-0062816P.
97US-0063045P.
97US-0063120P.
97US-0063121P.
97US-0063127P.
97US-0063128P.
97US-0063327P.
97US-0063329P.
97US-0063542P.
97US-0063541P.
97US-0063542P.
97US-0063544P.
97US-0063550P.
97US-0063564P.
97US-0063435P.
97US-0063704P.
97US-0063732P.
97US-0063734P.
97US-0063735P.
97US-0063738P.
97US-0064215P.
97US-0063870P.
97US-0064103P.
97US-0064248P.
97US-0064809P.
97US-0065186P.
97US-0065846P.
97US-0065693P.
97US-0066120P.
97US-0066364P.
97US-0066453P.
97US-0066466P.
97US-0066511P.
97US-0066770P.
97US-0066772P.
97US-0066840P.
97US-0069425P.
98US-0088026P.
98US-0099803P.
98WO-US018824.
98US-0100262P.
98WO-US019177.
98WO-US019330.
98US-0100858P.
98WO-US019437.
98US-0104080P.
98US-0109304P.
98US-0109304P.
98WO-US025108.
98US-0113296P.
99US-0143048P.
99US-0145698P.
99US-0146222P.
99WO-US020594.
99WO-US020944.
99WO-US021090.
99WO-US021547.
99WO-US023089.
99WO-US028214.

PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 12-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065593P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 25-NOV-1997; 97US-0066840P.
 PR 12-DEC-1997; 97US-0069425P.
 PR 04-JUN-1998; 98US-0088026P.
 PR 10-SEP-1998; 98US-0099803P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98US-0100262P.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98US-0100858P.
 PR 17-SEP-1998; 98US-0100858P.
 PR 17-SEP-1998; 98WO-US019437.
 PR 13-OCT-1998; 98US-0104080P.
 PR 20-NOV-1998; 98US-0109304P.
 PR 01-DEC-1998; 98WO-US025108.
 PR 22-DEC-1998; 98US-0113296P.
 PR 07-JUL-1999; 99US-0143048P.
 PR 26-JUL-1999; 99US-0145698P.
 PR 28-JUL-1999; 99US-0146222P.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 05-OCT-1999; 99WO-US021547.
 PR 29-NOV-1999; 99WO-US023089.
 PR 30-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX (GETH) GENENTECH INC.
 PA Aabkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AU, Hillan KJ, Kljavin IU;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX WPI; 2003-417923/39.

DR N-PSDB; ACD20207.
 XX Novel secreted and transmembrane polypeptide for modulating biological
 PT activity of cell expressing the polypeptide, identifying agonists or
 PT antagonists of polypeptide, and as molecular weight markers.
 XX Claim 12; Fig 86; 469pp; English.
 CC The invention relates to an isolated, secreted and transmembrane
 CC polypeptide, termed PRO polypeptide. The polypeptide is useful for
 CC identifying agonists or antagonists of the polypeptide, for preparing
 CC variants of the polypeptide, as molecular weight markers for protein
 CC electrophoresis purpose and the nucleic acid is useful for recombinantly
 CC expressing those markers. The polypeptide is also useful as therapeutic
 CC agent. PRO is useful in assays to identify other proteins or molecules
 CC involved in binding interaction. The nucleic acid is useful as
 CC hybridisation probes, in chromosome and gene mapping, in generation of
 CC antisense RNA and DNA, in the preparation of PRO polypeptide, for
 CC generating transgenic animals or knockout animals which in turn are
 CC useful in the development and screening of therapeutically useful
 CC reagents, to construct hybridisation probes for mapping the gene which
 CC encodes the PRO and for the genetic analysis of individuals with genetic
 CC disorders, in gene therapy, for chromosome identification, as chromosome
 CC marker, and for generating probes for polymerase chain reaction (PCR),
 CC Northern analysis, Southern analysis and Western analysis. PRO antibody
 CC is useful in diagnostic assays for PRO, e.g. detecting its expression in
 CC specific cells, tissues or serum and for affinity purification of PRO
 CC from recombinant cell culture or natural sources. The polypeptide or its
 CC antibody is useful for the preparation of medicament for treating
 CC conditions which is responsive to the PRO polypeptide or anti-PRO
 CC antibody e.g. tumour. The polypeptide and the nucleic acid is useful for
 CC tissue typing. The polypeptide is useful for treating obesity, diabetes
 CC or hypo- or hyper-insulinaemia and cardiac insufficiency disorders, for
 CC inhibiting tumour growth, enhances vascular permeability and immune
 CC response, for inducing regeneration of auditory hair cells and for
 CC treating hearing loss in mammals and for treating bone and/or cartilage
 CC disorders such as sports injuries and arthritis. The present sequence
 CC represents the amino acid sequence of a human secreted and transmembrane
 CC PRO polypeptide
 XX
 SQ Sequence 713 AA;
 Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HSPSGVAVSE 10
 |||:|:|:
 Db 135 HSPAGLASIQ 144
 RESULT 42
 AAE37179
 ID AAE37179 standard; protein; 713 AA.
 XX
 AC AAE37179;
 XX
 DT 07-AUG-2003 (first entry)
 XX
 XX Human LRRCAPS protein #4.
 DE Human; p53 pathway; Leucine rich repeat capricious related protein;
 XX LRRCAPS; cancer; gene therapy.
 KW Homo sapiens.
 OS
 XX
 XX Key Location/Qualifiers
 FH Domain 70..93
 FT /note= "LRR domain"
 FT Domain 94..117
 FT /note= "LRR domain"
 FT Domain 118..141
 FT /note= "LRR domain"

PR 25-NOV-1997; 97US-0066840P.
PR 12-DEC-1997; 97US-0069425P.
PR 04-JUN-1998; 98US-0086028P.
PR 10-SEP-1998; 98US-0099803P.
PR 14-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98US-0100262P.
PR 16-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100858P.
PR 17-SEP-1998; 98WO-US019437.
PR 13-OCT-1998; 98US-0104080P.
PR 20-NOV-1998; 98US-0109304P.
PR 01-DEC-1998; 98WO-US025108.
PR 22-DEC-1998; 98US-0113296P.
PR 07-JUL-1999; 98US-0143048P.
PR 26-JUL-1999; 98US-0145698P.
PR 28-JUL-1999; 98US-0146222P.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 01-DEC-1999; 99WO-US028301.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 05-JAN-2000; 2000WO-US000219.
PR 11-FEB-2000; 2000WO-US003565.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US005004.
PR 02-MAR-2000; 2000WO-US005841.
PR 30-MAR-2000; 2000WO-US007377.
PR 22-MAY-2000; 2000WO-US014042.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 24-AUG-2000; 2000WO-US023328.
PR 18-SEP-2000; 2000US-00665350.
XX (GETH) GENENTECH INC.
XX
XX Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kijavini IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WJ;
XX WPI; 2003-341586/32.
DR N-PSDB; ACA55010.
XX
XX New PRO polypeptides and nucleic acid molecules, useful in diagnosing or
PT treating inflammatory diseases, organ failure, atherosclerosis, cardiac
PT injury, infertility, cancer, AIDS, Alzheimer's disease or Parkinson's
PT disease.
XX
XX Claim 12; Fig 86; 473pp; English.
XX
XX The invention describes sixty one nucleic acids encoding PRO polypeptides
CC (secreted and transmembrane). The PRO polypeptides and nucleic acids are
CC useful in diagnosing or treating enterocolitis, gastrointestinal
CC ulceration, skin diseases associated with abnormal keratinocyte
CC differentiation, e.g. psoriasis or epithelial cancers such as squamous
CC cell carcinoma, Alzheimer's disease, Parkinson's disease, amyotrophic
CC lateral sclerosis, inflammatory diseases, e.g. rheumatoid arthritis,
CC asthma or multiple sclerosis, organ failure, atherosclerosis, cardiac
CC injury, infertility, birth defects, premature aging, AIDS, cancer,
CC diabetic complications, or mutations in general. The polypeptides are
CC also useful for wound repair and associated therapies concerned with re-
CC growth of tissue. The PRO polypeptides and nucleic acid molecules are

CC also useful in gene therapy, and as molecular weight markers for protein
CC electrophoresis purposes. The anti-PRO antibodies may be used in
CC diagnostic assays for PRO, or for the affinity purification of PRO from
CC recombinant cell culture or natural sources. This is the amino acid
CC sequence of a novel human PRO polypeptide
XX
XX SQ Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;
Best Local Similarity 60.0%; Pred. No. 1e+02;
Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Oy 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSFAGLASLQ 144

RESULT 44
AB014845
ID AB014845 standard; protein; 713 AA.
XX
AC AB014845;
XX
XX 22-AUG-2003 (first entry)
XX
XX Human secreted / transmembrane polypeptide PRO293.
XX
XX Human; ss; gene therapy; apoptosis; bleeding; tumour; ALS;
KW gynaecological disease; hysterectomy; angiogenesis; skin disease; cancer;
KW coronary ischaemic condition; gastrointestinal mucosa disorder; asthma;
KW mucosal lesion repair; keratinocyte differentiation; psoriasis;
KW Parkinson's disease; Alzheimer's disease; amyotrophic lateral sclerosis;
KW neuropathy; blood coagulation cascade disorder; thrombosis; haemorrhage;
KW neurodegenerative disease; endometrial bleeding; wound healing;
KW tissue repair; rheumatoid arthritis; multiple sclerosis; tissue typing.
XX
XX Homo sapiens.
XX
XX US2003027143-A1.
XX
XX PD 06-FEB-2003.
XX
XX PF 16-JUL-2001; 2001US-00906838.
XX
XX PR 17-SEP-1997; 97US-0059113P.
XX PR 17-SEP-1997; 97US-0059115P.
XX PR 17-SEP-1997; 97US-0059117P.
XX PR 17-SEP-1997; 97US-0059119P.
XX PR 17-SEP-1997; 97US-0059121P.
XX PR 17-SEP-1997; 97US-0059122P.
XX PR 17-SEP-1997; 97US-0059184P.
XX PR 18-SEP-1997; 97US-0059263P.
XX PR 18-SEP-1997; 97US-0059266P.
XX PR 15-OCT-1997; 97US-0062125P.
XX PR 17-OCT-1997; 97US-0062285P.
XX PR 17-OCT-1997; 97US-0062287P.
XX PR 21-OCT-1997; 97US-0063486P.
XX PR 24-OCT-1997; 97US-0062814P.
XX PR 24-OCT-1997; 97US-0062816P.
XX PR 24-OCT-1997; 97US-0063045P.
XX PR 24-OCT-1997; 97US-0063120P.
XX PR 24-OCT-1997; 97US-0063121P.
XX PR 24-OCT-1997; 97US-0063127P.
XX PR 24-OCT-1997; 97US-0063128P.
XX PR 27-OCT-1997; 97US-0063329P.
XX PR 27-OCT-1997; 97US-0063329P.
XX PR 28-OCT-1997; 97US-0063541P.
XX PR 28-OCT-1997; 97US-0063542P.
XX PR 28-OCT-1997; 97US-0063544P.
XX PR 28-OCT-1997; 97US-0063549P.
XX PR 28-OCT-1997; 97US-0063550P.
XX PR 28-OCT-1997; 97US-0063564P.
XX PR 29-OCT-1997; 97US-0063435P.

PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 25-NOV-1997; 97US-0066840P.
 PR 12-DEC-1997; 97US-0069425P.
 PR 04-JUN-1998; 98US-0088026P.
 PR 10-SEP-1998; 98US-0099803P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98US-0100262P.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98US-0100858P.
 PR 17-SEP-1998; 98WO-US019437.
 PR 13-OCT-1998; 98US-0104080P.
 PR 20-NOV-1998; 98US-0109304P.
 PR 01-DEC-1998; 98WO-US025108.
 PR 22-DEC-1998; 98US-0113296P.
 PR 07-JUL-1999; 99US-0143048P.
 PR 26-JUL-1999; 99US-0145688P.
 PR 28-JUL-1999; 99US-0146222P.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US022089.
 PR 23-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX (GETH) GENENTECH INC.
 XX
 PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX WPI; 2003-417249/39.
 DR N-PSDB; ACD19845.

XX Novel secreted and transmembrane polypeptides and polynucleotides
 PT encoding them useful for treating abnormal bleeding involved in
 PT gynecological diseases, skin diseases and neurodegenerative diseases.
 XX Claim 12; Fig 86; 467pp; English.
 XX
 CC The invention relates to an isolated secreted and transmembrane PRO
 CC polypeptide. The PRO polypeptides are useful for modulating biological
 CC activity of a cell, in diagnosing or treating abnormal bleeding involved
 CC in gynaecological diseases e.g. to avoid or lessen the need for
 CC hysterectomy, for treating angiogenesis, tumour, coronary ischaemic
 CC condition, disorders associated with the preservation and maintenance of
 CC gastrointestinal mucosa and the repair of acute and chronic mucosal
 CC lesions, skin diseases associated with abnormal keratinocyte
 CC differentiation (e.g. psoriasis), Parkinson's disease, Alzheimer's
 CC disease, amyotrophic lateral sclerosis (ALS), neuropathies, disease
 CC related to uncontrolled cell growth (e.g. cancer), blood coagulation
 CC cascade disorders, neurodegenerative disease, thrombosis, haemorrhage,
 CC endometrial bleeding, wound healing, tissue repair, asthma, rheumatoid
 CC arthritis, multiple sclerosis. Nucleic acid encoding PRO polypeptides are
 CC useful in molecular biology including uses as hybridisation probes and in
 CC the generation of antisense RNA and DNA, for preparing PRO polypeptides,
 CC for generating transgenic animals or knockout animals. The PRO
 CC polypeptides and their nucleic acids are useful for tissue typing. PRO
 CC antibodies are useful for immunohistochemical staining and/or assay of
 CC sample fluids. Anti-PRO antibodies are useful in diagnostic assays for
 CC PRO e.g. detecting its expression in specific cells, tissues or serum and
 CC for affinity purification of PRO from recombinant cell culture or natural
 CC sources. The present sequence represents the amino acid sequence of a
 CC human secreted and transmembrane PRO polypeptide
 XX
 SQ Sequence 713 AA;
 Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 HSPGVSVAE 10
 Db 135 HSPAGLASLQ 144
 RESULT 45
 AD829450
 ID ADB29450 standard; protein; 713 AA.
 XX
 AC ADB29450;
 XX
 DT 20-NOV-2003 (first entry)
 XX
 DE Human secreted/transmembrane protein, #46.
 XX
 KW Human; PRO; secreted; transmembrane; gastrointestinal mucosa;
 KW mucosal lesion; skin disease; keratinocyte differentiation; psoriasis;
 KW Parkinson's disease; Alzheimer's diseases; amyotrophic lateral sclerosis;
 KW ALS; neuropathy; cell growth; cancer; tumour; viral infection;
 KW neurodegenerative disease; antithrombotic agent; haemorrhage;
 KW endometrial bleeding angiogenesis; kidney tissue; apoptosis; therapeutic;
 KW tissue typing; immunohistochemical staining; gene therapy; neurotropic;
 KW neuroprotective; cytostatic; virucide; anticoagulant.
 XX
 OS Homo sapiens.
 XX
 PN US2003092002-A1.
 XX
 PD 15-MAY-2003.
 XX
 PF 10-JUL-2001; 2001US-00902615.
 XX
 PR 17-SEP-1997; 97US-0059113P.
 PR 17-SEP-1997; 97US-0059115P.
 PR 17-SEP-1997; 97US-0059117P.

PR 17-SEP-1997; 97US-0059119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 17-SEP-1997; 97US-0059184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 15-OCT-1997; 97US-0062125P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 24-OCT-1997; 97US-0062814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.
 PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 27-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063542P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063548P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 25-NOV-1997; 97US-0066840P.
 PR 12-DEC-1997; 97US-0069425P.
 PR 04-JUN-1998; 98US-0088026P.
 PR 10-SEP-1998; 98US-0099803P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98US-0100262P.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98US-0100858P.
 PR 17-SEP-1998; 98WO-US019437.
 PR 13-OCT-1998; 98US-0104080P.
 PR 20-NOV-1998; 98US-0109304P.
 PR 01-DEC-1998; 98WO-US025108.
 PR 22-DEC-1998; 98US-0113296P.
 PR 07-JUL-1999; 98US-0143048P.
 PR 26-JUL-1999; 98US-0145698P.
 PR 28-JUL-1999; 98US-0146222P.
 PR 08-SEP-1999; 98WO-US020594.
 PR 13-SEP-1999; 98WO-US020944.
 PR 15-SEP-1999; 98WO-US021090.
 PR 15-SEP-1999; 98WO-US021547.
 PR 05-OCT-1999; 98WO-US023089.
 PR 29-NOV-1999; 98WO-US028214.
 PR 30-NOV-1999; 98WO-US028313.
 PR 01-DEC-1999; 98WO-US028301.
 PR 02-DEC-1999; 98WO-US028564.
 PR 02-DEC-1999; 98WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005044.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX (GETH) GENENTECH INC.
 XX
 PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX WPI; 2003-765473/72.
 DR N-PSDB; ADB29449.
 XX
 PT Novel isolated native PRO polypeptide useful for treating Parkinson's
 PT disease, enterocolitis, Zollinger-Ellison syndrome gastrointestinal
 PT ulceration, Alzheimer's disease, amyotrophic lateral sclerosis, Usher
 PT syndrome.
 XX
 PS Claim 12; Fig 86; 469pp; English.
 CC
 CC The invention discloses isolated PRO secreted/transmembrane polypeptides
 CC and the nucleic acid encoding them. The polypeptides can be used to raise
 CC antibodies that specifically bind to the PRO polypeptide, for linking a
 CC bioactive molecule to a cell expressing a PRO protein and for modulating
 CC at least one biological activity of a cell. PRO polypeptides are useful
 CC for detecting other PRO polypeptides in a sample and for linking a
 CC bioactive molecule to a cell expressing a PRO polypeptide. The PRO
 CC polypeptide antibodies are useful for modulating the biological activity
 CC of a cell expressing PRO polypeptides. PRO polypeptides are also useful
 CC for treating disorders associated with the preservation and maintenance
 CC of gastrointestinal mucosa and the repair of acute and chronic mucosal
 CC lesions, skin diseases associated with abnormal keratinocyte
 CC differentiation (e.g. psoriasis), Parkinson's disease, Alzheimer's
 CC diseases, amyotrophic lateral sclerosis (ALS), neuropathies and
 CC additionally, disease related to uncontrolled cell growth, e.g. cancer.
 CC PRO polypeptides also serves as tumour specific antigens which may be
 CC exploited as therapeutic targets for anti-tumour drugs, and are also
 CC employed therapeutically in vivo for lessening the effects of viral
 CC infection. The PRO polypeptides can be also used in assays to determine
 CC if it has a role in neurodegenerative diseases or their reversal, as an
 CC antithrombotic agent with reduced risk for haemorrhage as compared with
 CC heparin, in treating other PRO-associated disorders, in modulating
 CC endometrial bleeding angiogenesis, and may also have an effect on kidney
 CC tissue. PRO polypeptides and their portions affect the expression of
 CC genes which have a role in apoptosis. The polynucleotides are useful in
 CC molecular biology including uses as hybridisation probes for cDNA library
 CC to isolate the full-length PRO cDNA or to isolate other cDNAs, in
 CC chromosome and gene mapping, in the generation of antisense RNA and DNA,
 CC for preparing PRO polypeptides, for generating transgenic animals or
 CC knockout animals which are useful in the development and screening of
 CC therapeutically useful reagents, as probes and for the genetic analysis
 CC of individuals with genetic disorders as well as for recombinantly
 CC expressing the protein and for chromosome identification. The proteins
 CC are useful as molecular marker for protein electrophoresis purposes, as
 CC therapeutic agents, for screening compounds to identify those that mimic
 CC the PRO polypeptide (agonists) or prevent the effect of the PRO
 CC polypeptide (antagonists). The polynucleotides and proteins are useful
 CC for tissue typing. PRO antibodies are useful for immunohistochemical
 CC staining and/or assay of sample fluids. Anti-PRO antibodies are useful in

CC diagnostic assays for PRO e.g. detecting its expression in specific
 CC cells, tissues or serum and for affinity purification of PRO from
 CC recombinant cell culture or natural sources. The PRO genes may also be
 CC used in gene therapy, particularly for replacing a defective gene. The
 CC sequence presented is a PRO polynucleotide of the invention.

SQ Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HSPGQVAVSE 10
 |||:|:|:
 Db 135 HSPAGLASLQ 144

RESULT 46
 ABU62147
 ID ABU62147 standard; protein; 713 AA.

AC ABU62147;

XX 25-AUG-2003 (first entry)

DE Tumour-associated antigenic target TAT292.

KW Human; TAT292; cancer; tumour-associated antigenic target; TAT;
 KW breast cancer; ovarian cancer; uterine cancer; tumour; ADEPT; prodrug;
 KW antibody dependent enzyme mediated prodrug therapy.

XX Homo sapiens.

Key Location/Qualifiers
 Peptide 1..18
 /label= Signal_sequence
 Modified-site 15..20
 /label= N-myristoylation_site
 Protein 19..713
 /label= Mature_TAT292
 Domain 28..68
 /label= Leucine_rich_repeat_N-terminal_domain
 Region 70..93
 /label= Leucine_rich_repeat
 Region 94..117
 /label= Leucine_rich_repeat
 Modified-site 94..97
 /note= "Asn is N-glycosylated"
 Region 118..141
 /label= Leucine_rich_repeat
 Region 142..165
 /label= Leucine_rich_repeat
 Region 166..189
 /label= Leucine_rich_repeat
 Region 190..213
 /label= Leucine_rich_repeat
 Region 214..237
 /label= Leucine_rich_repeat
 Region 238..261
 /label= Leucine_rich_repeat
 Region 262..285
 /label= Leucine_rich_repeat
 Region 286..310
 /label= Leucine_rich_repeat
 Region 311..335
 /label= Leucine_rich_repeat
 Region 336..359
 /label= Leucine_rich_repeat
 Region 360..384
 /label= Leucine_rich_repeat
 Domain 385..409
 /label= Leucine_rich_repeat_C-terminal_domain
 Modified-site 381..384
 /note= "Asn is N-glycosylated"
 Domain 438..499

FT Modified-site /label= Immunoglobulin_domain
 FT 470..473
 FT /label= Amidation_site
 FT 485..488
 FT Modified-site /note= "cAMP and cGMP dependent phosphorylation site"
 FT 493..498
 FT /label= N-myristoylation_site
 FT 532..539
 FT /label= Tyrosine_kinase_phosphorylation_site
 FT 555..558
 FT Modified-site /note= "Asn is N-glycosylated"
 FT 566..571
 FT Modified-site /label= N-myristoylation_site
 FT 583..586
 FT Modified-site /note= "Asn is N-glycosylated"
 FT 628..648
 FT Domain /label= Transmembrane_domain
 FT 660..663
 FT Modified-site /label= Amidation_site
 FT 667..687
 FT Domain /label= Transmembrane_domain
 FT 692..695
 FT Modified-site /label= Amidation_site
 FT 700..703
 FT US2003039648-A1.
 PN 27-FEB-2003.
 XX 17-APR-2002; 2002US-00125166.
 XX 16-SEP-1998; 98WO-US019330.
 PR 08-MAR-1999; 99WO-US005028.
 PR 15-SEP-1999; 99WO-US021090.
 PR 22-FEB-2000; 2000WO-US004341.
 PR 18-FEB-2000; 2000WO-US004414.
 PR 28-FEB-2000; 2000US-00665350.
 PR 13-JUL-2001; 2001WO-US006520.
 PR 30-JUL-2001; 2001US-00904553.
 XX 2001US-00918585.
 PA (GETH) GENENTECH INC.
 XX Goddard A, Gurney AL, Polakis P, Smith V, Wood WI, Wu TD;
 PI Zhang Z;
 XX WPI; 2003-492150/46.
 DR N-PSDB; ACA62803.
 DR Killing cancer cells (e.g. breast cancer cells), particularly for
 PT treating or preventing tumors in mammals, by contacting the cancer cells
 PT with an inhibitor (e.g. antibody) of a tumor-associated antigenic target
 PT (TAT) polypeptide.
 XX Claim 1; Fig 4; 74pp; English.
 PS The invention relates to a method of killing a cancer cell, which
 CC expresses a tumour-associated antigenic target (TAT) polypeptide, which
 CC comprises contacting the cancer cell with an antibody, oligopeptide or
 CC organic molecule that binds to the TAT polypeptide on the cancer cell,
 CC thus killing the cancer cell. The method is useful for killing cancer
 CC cells, particularly breast, ovarian or uterine cancer cells. The method
 CC is particularly useful for inhibiting the growth of, treating or
 CC preventing tumours or cancers in mammals. This method is also useful for
 CC diagnosing the presence of tumours. The anti-TAT antibodies may also be
 CC used in Antibody Dependent Enzyme Mediated Prodrug Therapy (ADEPT) by
 CC conjugating the antibody to a prodrug-activating enzyme, which converts a
 CC prodrug (e.g. a peptidyl chemotherapeutic agent) to an active anti-cancer
 CC drug. The present sequence represents the amino acid sequence of tumour-
 CC associated antigenic target, TAT292
 XX Sequence 713 AA;
 SQ

Query Match 75.5%; Score 37; DB 6; Length 713;

Best Local Similarity 60.0%; Pred. No. 1e+02; Mismatches 4; Indels 0; Gaps 0;
Matches 6; Conservative

QY 1 HSFSGVASVE 10
|||:|:|:
Db 135 HSFAGLASIQ 144

RESULT 47

ADA18306
ID ADA18306 standard; protein; 713 AA.

XX AC

ADA18306;

DT 20-NOV-2003 (first entry)

DE Human secreted/transmembrane protein, #46.

XX Human; PRO; secreted; transmembrane; gastrointestinal mucosa;
KW mucosal lesion; skin disease; keratinocyte differentiation; psoriasis;
KW Parkinson's disease; Alzheimer's diseases; amyotrophic lateral sclerosis;
KW ALS; neuropathy; cell growth; cancer; tumour; viral infection;
KW neurodegenerative disease; antithrombotic agent; haemorrhage;
KW endometrial bleeding angiogenesis; kidney tissue; apoptosis; therapeutic;
KW tissue typing; immunohistochemical staining; gene therapy; nootropic;
KW neuroprotective; cytostatic; virucide; anticoagulant.

XX OS Homo sapiens.

XX US2003039971-A1.

PN 27-FEB-2003.

PD 16-JUL-2001; 2001US-00906646.

XX 17-SEP-1997; 97US-0059113P.

PR 17-SEP-1997; 97US-0059115P.

PR 17-SEP-1997; 97US-0059117P.

PR 17-SEP-1997; 97US-0059119P.

PR 17-SEP-1997; 97US-0059121P.

PR 17-SEP-1997; 97US-0059122P.

PR 17-SEP-1997; 97US-0059184P.

PR 18-SEP-1997; 97US-0059263P.

PR 18-SEP-1997; 97US-0059266P.

PR 15-OCT-1997; 97US-0062125P.

PR 17-OCT-1997; 97US-0062285P.

PR 17-OCT-1997; 97US-0062287P.

PR 21-OCT-1997; 97US-0063486P.

PR 24-OCT-1997; 97US-0062814P.

PR 24-OCT-1997; 97US-0062816P.

PR 24-OCT-1997; 97US-0063045P.

PR 24-OCT-1997; 97US-0063120P.

PR 24-OCT-1997; 97US-0063121P.

PR 24-OCT-1997; 97US-0063127P.

PR 27-OCT-1997; 97US-0063128P.

PR 27-OCT-1997; 97US-0063327P.

PR 27-OCT-1997; 97US-0063329P.

PR 28-OCT-1997; 97US-0063341P.

PR 28-OCT-1997; 97US-0063342P.

PR 28-OCT-1997; 97US-0063344P.

PR 28-OCT-1997; 97US-0063349P.

PR 28-OCT-1997; 97US-0063350P.

PR 28-OCT-1997; 97US-0063356P.

PR 29-OCT-1997; 97US-0063435P.

PR 29-OCT-1997; 97US-0063704P.

PR 29-OCT-1997; 97US-0063732P.

PR 29-OCT-1997; 97US-0063734P.

PR 29-OCT-1997; 97US-0063735P.

PR 29-OCT-1997; 97US-0063738P.

PR 29-OCT-1997; 97US-0064215P.

PR 31-OCT-1997; 97US-0063870P.

PR 31-OCT-1997; 97US-0064103P.

PR 03-NOV-1997; 97US-0064248P.

PR 07-NOV-1997; 97US-0064803P.
PR 12-NOV-1997; 97US-0065186P.
PR 17-NOV-1997; 97US-0065846P.
PR 18-NOV-1997; 97US-0065693P.
PR 21-NOV-1997; 97US-0066120P.
PR 21-NOV-1997; 97US-0066364P.
PR 24-NOV-1997; 97US-0066453P.
PR 24-NOV-1997; 97US-0066466P.
PR 24-NOV-1997; 97US-0066511P.
PR 24-NOV-1997; 97US-0066770P.
PR 24-NOV-1997; 97US-0066772P.
PR 25-NOV-1997; 97US-0066840P.
PR 12-DEC-1997; 97US-0069425P.
PR 04-JUN-1998; 98US-0088026P.
PR 10-SEP-1998; 98US-0099803P.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US010262P.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100858P.
PR 17-SEP-1998; 98WO-US019437.
PR 13-OCT-1998; 98US-0104080P.
PR 20-NOV-1998; 98US-0109304P.
PR 01-DEC-1998; 98WO-US025108.
PR 22-DEC-1998; 98US-0113296P.
PR 07-JUL-1999; 98US-0143048P.
PR 26-JUL-1999; 98US-0145698P.
PR 28-JUL-1999; 99US-0146222P.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 01-DEC-1999; 99WO-US028301.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 05-JAN-2000; 2000WO-US000219.
PR 11-FEB-2000; 2000WO-US003565.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US005004.
PR 02-MAR-2000; 2000WO-US005841.
PR 20-MAR-2000; 2000WO-US007377.
PR 30-MAR-2000; 2000WO-US008439.
PR 22-MAY-2000; 2000WO-US014042.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 24-AUG-2000; 2000WO-US023328.
PR 18-SEP-2000; 2000US-00665350.

(GETH) GENENTECH INC.

PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski EJ, Grimaldi JC, Gurney AL, Hillan KJ, Kijavini IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;

WPI; 2003-503392/47.

DR N-PSDB; ADA18305.

XX New secreted and transmembrane polypeptides useful for treating skin,
PT neurodegenerative diseases, asthma, rheumatoid arthritis, psoriasis and
PT multiple sclerosis.

XX Claim 12; SEQ ID NO 245; 471pp; English.

PS The invention discloses isolated PRO secreted/transmembrane polypeptides
CC and the nucleic acid encoding them. The polypeptides can be used to raise

antibodies that specifically bind to the PRO polypeptide, for linking a bioactive molecule to a cell expressing a PRO protein and for modulating at least one biological activity of a cell. PRO polypeptides are useful for detecting other PRO polypeptides in a sample and for linking a bioactive molecule to a cell expressing a PRO polypeptide. The PRO polypeptide antibodies are useful for modulating the biological activity of a cell expressing PRO polypeptides. PRO polypeptides are also useful for treating disorders associated with the preservation and maintenance of gastrointestinal mucosa and the repair of acute and chronic mucosal lesions, skin diseases associated with abnormal keratinocyte differentiation (e.g. psoriasis), Parkinson's disease, Alzheimer's diseases, amyotrophic lateral sclerosis (ALS), neuropathies and additionally, diseases related to uncontrolled cell growth, e.g. cancer. PRO polypeptides also serve as tumour specific antigens which may be exploited as therapeutic targets for anti-tumour drugs, and are also employed therapeutically in vivo for lessening the effects of viral infection. The PRO polypeptides can be also used in assays to determine if it has a role in neurodegenerative diseases or their reversal, as an antithrombotic agent with reduced risk for haemorrhage as compared with heparin, in treating other PRO-associated disorders, in modulating endometrial bleeding angiogenesis, and may also have an effect on kidney tissue. PRO polypeptides and their portions affect the expression of genes which have a role in apoptosis. The polynucleotides are useful in molecular biology, including uses as hybridisation probes for cDNA library to isolate the full-length PRO cDNA or to isolate other cDNAs, in chromosome and gene mapping, in the generation of antisense RNA and DNA, for preparing PRO polypeptides, for generating transgenic animals or knockout animals which are useful in the development and screening of therapeutically useful reagents, as probes and for the genetic analysis of individuals with genetic disorders as well as for recombinantly expressing the protein and for chromosome identification. The proteins are useful as molecular marker for protein electrophoresis purposes, as therapeutic agents, for screening compounds to identify those that mimic the PRO polypeptide (agonists) or prevent the effect of the PRO polypeptide (antagonists). The polynucleotides and proteins are useful for tissue typing. PRO antibodies are useful for immunohistochemical staining and/or assay of sample fluids. Anti-PRO antibodies are useful in diagnostic assays for PRO e.g. detecting its expression in specific cells, tissues or serum and for affinity purification of PRO from recombinant cell culture or natural sources. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. The sequence presented is a PRO polynucleotide of the invention.

SQ Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 HSPFSGVASVE 10
 |||:|:|:
 Db 135 HSPFAGLASLQ 144

RESULT 48
 ABO32797
 ID ABO32797 standard; protein; 713 AA.

XX ABO32797;

XX 17-SEP-2003 (first entry)

DE Human secreted/transmembrane protein PRO293.

XX Human; PRO; secreted and transmembrane protein; inflammation;
 KW rheumatoid arthritis; psoriasis; multiple sclerosis; atherosclerosis;
 KW infertility; birth defect; premature aging; malignancy; cancer; stroke;
 KW heart attack; hypertension; gastrointestinal ulceration;
 KW Parkinson's disease; Alzheimer's disease; AIDS; cholesterol uptake;
 KW wound healing; tissue repair; gene therapy.

OS Homo sapiens.

XX

PN US2003045693-A1.
 XX 06-MAR-2003.
 XX 11-JUL-2001; 2001US-00903749.
 XX 17-SEP-1997; 97US-0059113P.
 PR 17-SEP-1997; 97US-0059115P.
 PR 17-SEP-1997; 97US-0059117P.
 PR 17-SEP-1997; 97US-0059119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 17-SEP-1997; 97US-0059124P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 18-SEP-1997; 97US-0059268P.
 PR 18-SEP-1997; 97US-0059270P.
 PR 18-SEP-1997; 97US-0059272P.
 PR 18-SEP-1997; 97US-0059274P.
 PR 18-SEP-1997; 97US-0059276P.
 PR 18-SEP-1997; 97US-0059278P.
 PR 18-SEP-1997; 97US-0059280P.
 PR 18-SEP-1997; 97US-0059282P.
 PR 18-SEP-1997; 97US-0059284P.
 PR 18-SEP-1997; 97US-0059286P.
 PR 18-SEP-1997; 97US-0059288P.
 PR 18-SEP-1997; 97US-0059290P.
 PR 18-SEP-1997; 97US-0059292P.
 PR 18-SEP-1997; 97US-0059294P.
 PR 18-SEP-1997; 97US-0059296P.
 PR 18-SEP-1997; 97US-0059298P.
 PR 18-SEP-1997; 97US-0059300P.
 PR 18-SEP-1997; 97US-0059302P.
 PR 18-SEP-1997; 97US-0059304P.
 PR 18-SEP-1997; 97US-0059306P.
 PR 18-SEP-1997; 97US-0059308P.
 PR 18-SEP-1997; 97US-0059310P.
 PR 18-SEP-1997; 97US-0059312P.
 PR 18-SEP-1997; 97US-0059314P.
 PR 18-SEP-1997; 97US-0059316P.
 PR 18-SEP-1997; 97US-0059318P.
 PR 18-SEP-1997; 97US-0059320P.
 PR 18-SEP-1997; 97US-0059322P.
 PR 18-SEP-1997; 97US-0059324P.
 PR 18-SEP-1997; 97US-0059326P.
 PR 18-SEP-1997; 97US-0059328P.
 PR 18-SEP-1997; 97US-0059330P.
 PR 18-SEP-1997; 97US-0059332P.
 PR 18-SEP-1997; 97US-0059334P.
 PR 18-SEP-1997; 97US-0059336P.
 PR 18-SEP-1997; 97US-0059338P.
 PR 18-SEP-1997; 97US-0059340P.
 PR 18-SEP-1997; 97US-0059342P.
 PR 18-SEP-1997; 97US-0059344P.
 PR 18-SEP-1997; 97US-0059346P.
 PR 18-SEP-1997; 97US-0059348P.
 PR 18-SEP-1997; 97US-0059350P.
 PR 18-SEP-1997; 97US-0059352P.
 PR 18-SEP-1997; 97US-0059354P.
 PR 18-SEP-1997; 97US-0059356P.
 PR 18-SEP-1997; 97US-0059358P.
 PR 18-SEP-1997; 97US-0059360P.
 PR 18-SEP-1997; 97US-0059362P.
 PR 18-SEP-1997; 97US-0059364P.
 PR 18-SEP-1997; 97US-0059366P.
 PR 18-SEP-1997; 97US-0059368P.
 PR 18-SEP-1997; 97US-0059370P.
 PR 18-SEP-1997; 97US-0059372P.
 PR 18-SEP-1997; 97US-0059374P.
 PR 18-SEP-1997; 97US-0059376P.
 PR 18-SEP-1997; 97US-0059378P.
 PR 18-SEP-1997; 97US-0059380P.
 PR 18-SEP-1997; 97US-0059382P.
 PR 18-SEP-1997; 97US-0059384P.
 PR 18-SEP-1997; 97US-0059386P.
 PR 18-SEP-1997; 97US-0059388P.
 PR 18-SEP-1997; 97US-0059390P.
 PR 18-SEP-1997; 97US-0059392P.
 PR 18-SEP-1997; 97US-0059394P.
 PR 18-SEP-1997; 97US-0059396P.
 PR 18-SEP-1997; 97US-0059398P.
 PR 18-SEP-1997; 97US-0059400P.
 PR 18-SEP-1997; 97US-0059402P.
 PR 18-SEP-1997; 97US-0059404P.
 PR 18-SEP-1997; 97US-0059406P.
 PR 18-SEP-1997; 97US-0059408P.
 PR 18-SEP-1997; 97US-0059410P.
 PR 18-SEP-1997; 97US-0059412P.
 PR 18-SEP-1997; 97US-0059414P.
 PR 18-SEP-1997; 97US-0059416P.
 PR 18-SEP-1997; 97US-0059418P.
 PR 18-SEP-1997; 97US-0059420P.
 PR 18-SEP-1997; 97US-0059422P.
 PR 18-SEP-1997; 97US-0059424P.
 PR 18-SEP-1997; 97US-0059426P.
 PR 18-SEP-1997; 97US-0059428P.
 PR 18-SEP-1997; 97US-0059430P.
 PR 18-SEP-1997; 97US-0059432P.
 PR 18-SEP-1997; 97US-0059434P.
 PR 18-SEP-1997; 97US-0059436P.
 PR 18-SEP-1997; 97US-0059438P.
 PR 18-SEP-1997; 97US-0059440P.
 PR 18-SEP-1997; 97US-0059442P.
 PR 18-SEP-1997; 97US-0059444P.
 PR 18-SEP-1997; 97US-0059446P.
 PR 18-SEP-1997; 97US-0059448P.
 PR 18-SEP-1997; 97US-0059450P.
 PR 18-SEP-1997; 97US-0059452P.
 PR 18-SEP-1997; 97US-0059454P.
 PR 18-SEP-1997; 97US-0059456P.
 PR 18-SEP-1997; 97US-0059458P.
 PR 18-SEP-1997; 97US-0059460P.
 PR 18-SEP-1997; 97US-0059462P.
 PR 18-SEP-1997; 97US-0059464P.
 PR 18-SEP-1997; 97US-0059466P.
 PR 18-SEP-1997; 97US-0059468P.
 PR 18-SEP-1997; 97US-0059470P.
 PR 18-SEP-1997; 97US-0059472P.
 PR 18-SEP-1997; 97US-0059474P.
 PR 18-SEP-1997; 97US-0059476P.
 PR 18-SEP-1997; 97US-0059478P.
 PR 18-SEP-1997; 97US-0059480P.
 PR 18-SEP-1997; 97US-0059482P.
 PR 18-SEP-1997; 97US-0059484P.
 PR 18-SEP-1997; 97US-0059486P.
 PR 18-SEP-1997; 97US-0059488P.
 PR 18-SEP-1997; 97US-0059490P.
 PR 18-SEP-1997; 97US-0059492P.
 PR 18-SEP-1997; 97US-0059494P.
 PR 18-SEP-1997; 97US-0059496P.
 PR 18-SEP-1997; 97US-0059498P.
 PR 18-SEP-1997; 97US-0059500P.
 PR 18-SEP-1997; 97US-0059502P.
 PR 18-SEP-1997; 97US-0059504P.
 PR 18-SEP-1997; 97US-0059506P.
 PR 18-SEP-1997; 97US-0059508P.
 PR 18-SEP-1997; 97US-0059510P.
 PR 18-SEP-1997; 97US-0059512P.
 PR 18-SEP-1997; 97US-0059514P.
 PR 18-SEP-1997; 97US-0059516P.
 PR 18-SEP-1997; 97US-0059518P.
 PR 18-SEP-1997; 97US-0059520P.
 PR 18-SEP-1997; 97US-0059522P.
 PR 18-SEP-1997; 97US-0059524P.
 PR 18-SEP-1997; 97US-0059526P.
 PR 18-SEP-1997; 97US-0059528P.
 PR 18-SEP-1997; 97US-0059530P.
 PR 18-SEP-1997; 97US-0059532P.
 PR 18-SEP-1997; 97US-0059534P.
 PR 18-SEP-1997; 97US-0059536P.
 PR 18-SEP-1997; 97US-0059538P.
 PR 18-SEP-1997; 97US-0059540P.
 PR 18-SEP-1997; 97US-0059542P.
 PR 18-SEP-1997; 97US-0059544P.
 PR 18-SEP-1997; 97US-0059546P.
 PR 18-SEP-1997; 97US-0059548P.
 PR 18-SEP-1997; 97US-0059550P.
 PR 18-SEP-1997; 97US-0059552P.
 PR 18-SEP-1997; 97US-0059554P.
 PR 18-SEP-1997; 97US-0059556P.
 PR 18-SEP-1997; 97US-0059558P.
 PR 18-SEP-1997; 97US-0059560P.
 PR 18-SEP-1997; 97US-0059562P.
 PR 18-SEP-1997; 97US-0059564P.
 PR 18-SEP-1997; 97US-0059566P.
 PR 18-SEP-1997; 97US-0059568P.
 PR 18-SEP-1997; 97US-0059570P.
 PR 18-SEP-1997; 97US-0059572P.
 PR 18-SEP-1997; 97US-0059574P.
 PR 18-SEP-1997; 97US-0059576P.
 PR 18-SEP-1997; 97US-0059578P.
 PR 18-SEP-1997; 97US-0059580P.
 PR 18-SEP-1997; 97US-0059582P.
 PR 18-SEP-1997; 97US-0059584P.
 PR 18-SEP-1997; 97US-0059586P.
 PR 18-SEP-1997; 97US-0059588P.
 PR 18-SEP-1997; 97US-0059590P.
 PR 18-SEP-1997; 97US-0059592P.
 PR 18-SEP-1997; 97US-0059594P.
 PR 18-SEP-1997; 97US-0059596P.
 PR 18-SEP-1997; 97US-0059598P.
 PR 18-SEP-1997; 97US-0059600P.
 PR 18-SEP-1997; 97US-0059602P.
 PR 18-SEP-1997; 97US-0059604P.
 PR 18-SEP-1997; 97US-0059606P.
 PR 18-SEP-1997; 97US-0059608P.
 PR 18-SEP-1997; 97US-0059610P.
 PR 18-SEP-1997; 97US-0059612P.
 PR 18-SEP-1997; 97US-0059614P.
 PR 18-SEP-1997; 97US-0059616P.
 PR 18-SEP-1997; 97US-0059618P.
 PR 18-SEP-1997; 97US-0059620P.
 PR 18-SEP-1997; 97US-0059622P.
 PR 18-SEP-1997; 97US-0059624P.
 PR 18-SEP-1997; 97US-0059626P.
 PR 18-SEP-1997; 97US-0059628P.
 PR 18-SEP-1997; 97US-0059630P.
 PR 18-SEP-1997; 97US-0059632P.
 PR 18-SEP-1997; 97US-0059634P.
 PR 18-SEP-1997; 97US-0059636P.
 PR 18-SEP-1997; 97US-0059638P.
 PR 18-SEP-1997; 97US-0059640P.
 PR 18-SEP-1997; 97US-0059642P.
 PR 18-SEP-1997; 97US-0059644P.
 PR 18-SEP-1997; 97US-0059646P.
 PR 18-SEP-1997; 97US-0059648P.
 PR 18-SEP-1997; 97US-0059650P.
 PR 18-SEP-1997; 97US-0059652P.
 PR 18-SEP-1997; 97US-0059654P.
 PR 18-SEP-1997; 97US-0059656P.
 PR 18-SEP-1997; 97US-0059658P.
 PR 18-SEP-1997; 97US-0059660P.
 PR 18-SEP-1997; 97US-0059662P.
 PR 18-SEP-1997; 97US-0059664P.
 PR 18-SEP-1997; 97US-0059666P.
 PR 18-SEP-1997; 97US-0059668P.
 PR 18-SEP-1997; 97US-0059670P.
 PR 18-SEP-1997; 97US-0059672P.
 PR 18-SEP-1997; 97US-0059674P.
 PR 18-SEP-1997; 97US-0059676P.
 PR 18-SEP-1997; 97US-0059678P.
 PR 18-SEP-1997; 97US-0059680P.
 PR 18-SEP-1997; 97US-0059682P.
 PR 18-SEP-1997; 97US-0059684P.
 PR 18-SEP-1997; 97US-0059686P.
 PR 18-SEP-1997; 97US-0059688P.
 PR 18-SEP-1997; 97US-0059690P.
 PR 18-SEP-1997; 97US-0059692P.
 PR 18-SEP-1997; 97US-0059694P.
 PR 18-SEP-1997; 97US-0059696P.
 PR 18-SEP-1997; 97US-0059698P.
 PR 18-SEP-1997; 97US-0059700P.
 PR 18-SEP-1997; 97US-0059702P.
 PR 18-SEP-1997; 97US-0059704P.
 PR 18-SEP-1997; 97US-0059706P.
 PR 18-SEP-1997; 97US-0059708P.
 PR 18-SEP-1997; 97US-0059710P.
 PR 18-SEP-1997; 97US-0059712P.
 PR 18-SEP-1997; 97US-0059714P.
 PR 18-SEP-1997; 97US-0059716P.
 PR 18-SEP-1997; 97US-0059718P.
 PR 18-SEP-1997; 97US-0059720P.
 PR 18-SEP-1997; 97US-0059722P.
 PR 18-SEP-1997; 97US-0059724P.
 PR 18-SEP-1997; 97US-0059726P.
 PR 18-SEP-1997; 97US-0059728P.
 PR 18-SEP-1997; 97US-0059730P.
 PR 18-SEP-1997; 97US-0059732P.
 PR 18-SEP-1997; 97US-0059734P.
 PR 18-SEP-1997; 97US-0059736P.
 PR 18-SEP-1997; 97US-0059738P.
 PR 18-SEP-1997; 97US-0059740P.
 PR 18-SEP-1997; 97US-0059742P.
 PR 18-SEP-1997; 97US-0059744P.
 PR 18-SEP-1997; 97US-0059746P.
 PR 18-SEP-1997; 97US-0059748P.
 PR 18-SEP-1997; 97US-0059750P.
 PR 18-SEP-1997; 97US-0059752P.
 PR 18-SEP-1997; 97US-0059754P.
 PR 18-SEP-1997; 97US-0059756P.
 PR 18-SEP-1997; 97US-0059758P.
 PR 18-SEP-1997; 97US-0059760P.
 PR 18-SEP-1997; 97US-0059762P.
 PR 18-SEP-1997; 97US-0059764P.
 PR 18-SEP-1997; 97US-0059766P.
 PR 18-SEP-1997; 97US-0059768P.
 PR 18-SEP-1997; 97US-0059770P.
 PR 18-SEP-1997; 97US-0059772P.
 PR 18-SEP-1997; 97US-0059774P.
 PR 18-SEP-1997; 97US-0059776P.
 PR 18-SEP-1997; 97US-0059778P.
 PR 18-SEP-1997; 97US-0059780P.
 PR 18-SEP-1997; 97US-0059782P.
 PR 18-SEP-1997; 97US-0059784P.
 PR 18-SEP-1997; 97US-0059786P.
 PR 18-SEP-1997; 97US-0059788P.
 PR 18-SEP-1997; 97US-0059790P.
 PR 18-SEP-1997; 97US-0059792P.
 PR 18-SEP-1997; 97US-0059794P.
 PR 18-SEP-1997; 97US-0059796P.
 PR 18-SEP-1997; 97US-0059798P.
 PR 18-SEP-1997; 97US-0059800P.
 PR 18-SEP-1997; 97US-0059802P.
 PR 18-SEP-1997; 97US-0059804P.
 PR 18-SEP-1997; 97US-0059806P.
 PR 18-SEP-1997; 97US-0059808P.
 PR 18-SEP-1997; 97US-0059810P.
 PR 18-SEP-1997; 97US-0059812P.
 PR 18-SEP-1997; 97US-0059814P.
 PR 18-SEP-1997; 97US-0059816P.
 PR 18-SEP-1997; 97US-0059818P.
 PR 18-SEP-1997; 97US-0059820P.
 PR 18-SEP-1997; 97US-0059822P.
 PR 18-SEP-1997; 97US-0059824P.
 PR 18-SEP-1997; 97US-0059826P.
 PR 18-SEP-1997; 97US-0059828P.
 PR 18-SEP-1997; 97US-0059830P.
 PR 18-SEP-1997; 97US-0059832P.
 PR 18-SEP-1997; 97US-0059834P.
 PR 18-SEP-1997; 97US-0059836P.
 PR 18-SEP-1997; 97US-0059838P.
 PR 18-SEP-1997; 97US-0059840P.
 PR 18-SEP-1997; 97US-0059842P.
 PR 18-SEP-1997; 97US-0059844P.
 PR 18-SEP-1997; 97US-0059846P.
 PR 18-SEP-1997; 97US-0059848P.
 PR 18-SEP-1997; 97US-0059850P.
 PR 18-SEP-1997; 97US-0059852P.
 PR 18-SEP-1997; 97US-0059854P.
 PR 18-SEP-1997; 97US-0059856P.
 PR 18-SEP-1997; 97US-0059858P.
 PR 18-SEP-1997; 97US-0059860P.
 PR 18-SEP-1997; 97US-0059862P.
 PR 18-SEP-1997; 97US-0059864P.
 PR 18-SEP-1997; 97US-0059866P.
 PR 18-SEP-1997; 97US-0059868P.
 PR 18-SEP-1997; 97US-0059870P.
 PR 18-SEP-1997; 97US-0059872P.
 PR 18-SEP-1997; 97US-0059874P.
 PR 18-SEP-1997; 97US-0059876P.
 PR 18-SEP-1997; 97US-0059878P.
 PR 18-SEP-1997; 97US-0059880P.
 PR 18-SEP-1997; 97US-0059882P.
 PR 18-SEP-1997; 97US-0059884P.
 PR 18-SEP-1997; 97US-0059886P.
 PR 18-SEP-1997; 97US-0059888P.
 PR 18-SEP-1997; 97US-0059890P.
 PR 18-SEP-1997; 97US-0059892P.
 PR 18-SEP-1997; 97US-0059894P.
 PR 18-SEP-1997; 97US-0059896P.
 PR 18-SEP-1997; 97US-0059898P.
 PR 18-SEP-1997; 97US-0059900P.
 PR 18-SEP-1997; 97US-0059902P.
 PR 18-SEP-1997; 97US-0059904P.
 PR 18-SEP-1997; 97US-0059906P.
 PR 18-SEP-1997; 97US-0059908P.
 PR 18-SEP-1997; 97US-0059910P.
 PR 18-SEP-1997; 97US-0059912P.
 PR 18-SEP-1997; 97US-0059914P.
 PR 18-SEP-1997; 97US-0059916P.
 PR 18-SEP-1997; 97US-0059918P.
 PR 18-SEP-1997; 97US-0059920P.
 PR 18-SEP-1997; 97US-0059922P.
 PR 18-SEP-1997; 97US-0059924P.
 PR 18-SEP-1997; 97US-0059926P.
 PR 18-SEP-1997; 97US-0059928P.
 PR 18-SEP-1997; 97US-0059930P.
 PR 18-SEP-1997; 97US-0059932P.
 PR 18-SEP-1997; 97US-0059934P.
 PR 18-SEP-1997; 97US-0059936P.
 PR 18-SEP-1997; 97US-0059938P.
 PR 18-SEP-1997; 97US-0059940P.
 PR 18-SEP-1997; 97US-0059942P.
 PR 18-SEP-1997; 97US-0059944P.
 PR 18-SEP-1997; 97US-0059946P.
 PR 18-SEP-1997; 97US-0059948P.
 PR 18-SEP-1997; 97US-0059950P.
 PR 18-SEP-1997; 97US-0059952P.
 PR 18-SEP-1997; 97US-0059954P.
 PR 18-SEP-1997; 97US-0059956P.
 PR 18-SEP-1997; 97US-0059958P.
 PR 18-SEP-1997; 97US-0059960P.
 PR 18-SEP-1997; 97US-0059962P.
 PR 18-SEP-1997; 97US-0059964P.
 PR 18-SEP-1997; 97US-0059966P.
 PR 18-SEP-1997; 97US-0059968P.
 PR 18-SEP-1997; 97US-0059970P.
 PR 18-SEP-1997; 97US-0059972P.
 PR 18-SEP-1997

PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX
 PA (GETH) GENENTECH INC.
 XX
 PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, KJavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WJ;
 XX
 XX WPI; 2003-512316/48.
 DR N-PSDB; ACD66992.
 XX
 PT New Genes and secreted and transmembrane polypeptides (e.g. PRO245 or
 PT PRO1868), useful for treating or diagnosing e.g. cancers,
 PT atherosclerosis, infertility, stroke, AIDS or multiple sclerosis in
 PT mammals.
 XX
 PS Claim 12; Fig 86; 476pp; English.
 XX
 CC The invention relates to an isolated nucleic acid molecule comprising a
 CC sequence with at least 80% identity to: (a) a nucleotide encoding any of
 CC 61 PRO (secreted and transmembrane protein) polypeptides appearing as
 CC ABO32756-ABO32816; or (b) any of 61 nucleotide sequences having 50-4053bp
 CC fully defined in the specification; or the full length coding sequence of
 CC any these 61 nucleotide sequences. Also included are the isolated PRO
 CC polypeptide (lacking its associated signal peptide or an extracellular
 CC domain of the PRO polypeptide, with or lacking its associated signal
 CC peptide), a vector comprising the nucleic acid molecule, a host cell
 CC comprising the vector (used to produce the PRO polypeptide), a chimaeric
 CC molecule comprising the PRO polypeptide fused to a heterologous amino
 CC acid sequence, an anti-PRO antibody, detecting PRO245 or PRO1868
 CC polypeptide in a sample suspected of containing any of these PRO
 CC polypeptides, linking a bioactive molecule to a cell expressing a PRO245
 CC or PRO1868 polypeptide and modulating at least one biological activity of
 CC a cell expressing the PRO245 or PRO1868 polypeptide. The PRO polypeptides
 CC or polynucleotides are useful as pharmaceuticals, diagnostics, biosensors
 CC or bioeffectors. These are particularly useful for diagnosing or treating
 CC e.g. inflammations, rheumatoid arthritis, psoriasis, multiple sclerosis,
 CC atherosclerosis, infertility, birth defects, premature aging, malignancy
 CC (e.g. cancers), strokes, heart attacks, hypertension, gastrointestinal
 CC ulcerations, Parkinson's diseases, Alzheimer's disease, or AIDS in
 CC mammals. These are also useful for modulating cholesterol uptake in the
 CC body, and in wound healing or tissue repair. The PRO polypeptides are
 CC useful in drug screening. The PRO polypeptides are also useful as
 CC molecular weight markers, or for chromosome identification. The PRO genes
 CC are useful as hybridisation probes, or for screening libraries of human
 CC cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene
 CC therapy, particularly for replacing a defective gene. The present
 CC sequence represents a PRO polypeptide

XX
 SQ Sequence 713 AA;
 Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. le+02; Indels 0; Gaps 0;
 Matches 6; Conservative 4; Mismatches 0;
 QY 1 HSFSGVASVE 10
 |||:|:|:|:
 Db 135 HSFAGLASLQ 144
 RESULT 49
 ABO34857
 ID ABO34857 standard; protein; 713 AA.
 XX
 AC ABO34857;
 XX
 DT 22-SEP-2003 (first entry)
 XX
 DE Human PRO polypeptide #42.
 XX
 KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
 KW abnormal bleeding; gynaecological disease; hysterectomy; mucosal lesion;
 KW coronary ischaemic condition; gastrointestinal mucosa; skin disease; ALS;
 KW keratinocyte differentiation; psoriasis; Parkinson's disease; asthma;
 KW Alzheimer's disease; rheumatoid arthritis; multiple sclerosis; cancer;
 KW amyotrophic lateral sclerosis; neuropathy; uncontrolled cell growth.
 XX
 OS Homo sapiens.
 PN US2003044793-A1.
 XX
 PD 06-MAR-2003.
 XX
 PF 11-JUL-2001; 2001US-00903786.
 XX
 PR 17-SEP-1997; 97US-0059113P.
 PR 17-SEP-1997; 97US-0059115P.
 PR 17-SEP-1997; 97US-0059117P.
 PR 17-SEP-1997; 97US-0059119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 18-SEP-1997; 97US-0059184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 15-OCT-1997; 97US-0062125P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 21-OCT-1997; 97US-0062814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.
 PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 27-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063542P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063549P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.

PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065848P.
 PR 18-NOV-1997; 97US-0065869P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 25-NOV-1997; 97US-0066772P.
 PR 12-DEC-1997; 97US-0069425P.
 PR 04-JUN-1998; 98US-0088026P.
 PR 10-SEP-1998; 98US-0099803P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98US-0100262P.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98US-0100858P.
 PR 17-SEP-1998; 98WO-US019437.
 PR 13-OCT-1998; 98US-0104080P.
 PR 20-NOV-1998; 98US-0109304P.
 PR 01-DEC-1998; 98WO-US025108.
 PR 22-DEC-1998; 98US-0113296P.
 PR 07-JUL-1999; 99US-0143048P.
 PR 26-JUL-1999; 99US-0145698P.
 PR 28-JUL-1999; 99US-0146222P.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 28-NOV-1999; 99WO-US028214.
 PR 30-NOV-1999; 99WO-US028310.
 PR 01-DEC-1999; 99WO-US028301.
 PR 02-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 (GETH) GENENTECH INC.

PA Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX WPI; 2003-492256/46.
 DR N-PSDB; AC083153.
 XX
 XX
 XX
 PI Novel secreted and transmembrane PRO polypeptides and polynucleotides
 PT encoding them, useful for treating abnormal bleeding involved in
 PT gynecological diseases, skin diseases and neurodegenerative diseases.
 XX
 PS Claim 12; Fig 86; 475pp; English.
 XX

CC The invention relates to human PRO polypeptides (secreted and
 CC transmembrane polypeptides) and the PRO polynucleotides encoding them.
 CC The PRO polypeptides and polynucleotides can be used in diagnosing or
 CC treating abnormal bleeding involved in gynaecological diseases e.g. to
 CC avoid or lessen the need for hysterectomy. They can also be used in
 CC treating coronary ischaemic conditions, disorders associated with the
 CC preservation and maintenance of gastrointestinal mucosa and the repair of
 CC acute and chronic mucosal lesions, skin diseases associated with abnormal
 CC keratinocyte differentiation (e.g. psoriasis), Parkinson's disease,
 CC Alzheimer's disease, asthma, rheumatoid arthritis, multiple sclerosis,
 CC amyotrophic lateral sclerosis (ALS), neuropathies and diseases related to
 CC uncontrolled cell growth, such as cancer. Sequences ABO34816-ABO34876
 CC represent human PRO polypeptides of the invention
 XX
 XX Sequence 713 AA;
 SQ
 Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. No. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 HSPSGVASVE 10
 Db 135 HSPAGLASLQ 144
 |||:|:|:
 RESULT 50
 ADA16281
 ID ADA16281 standard; protein; 713 AA.
 AC ADA16281;
 XX
 XX 06-NOV-2003 (first entry)
 XX
 DE Human secreted/transmembrane protein, #46.
 XX
 KW Human, PRO; secreted; transmembrane; therapeutic; tissue typing;
 KW immunohistochemical staining; gene therapy; neonatal heart;
 KW vascular endothelial growth factor; VEGF; proliferation;
 KW endothelial cell; stimulated T-lymphocyte; retinal neuron;
 KW rod photoreceptor cell; c-fos; glucose; FFA; chondrocyte;
 KW cardiac insufficiency disorder; wound; cancer; tumour; retinal disorder;
 KW retinitis pigmentosa; obesity; diabete; hyperinsulinaemia;
 KW hypotension; bone disorder; cartilage disorder; sport injury;
 KW arthritis; cardiant; vulnery; cytostatic; ophthalmological;
 KW osteopathic; antiarthritic; anorectic.
 XX
 OS Homo sapiens.
 XX
 XX US2003049621-A1.
 XX
 XX 13-MAR-2003.
 XX
 XX 11-JUL-2001; 2001US-00904119.
 PR 17-SEP-1997; 97US-0059113P.
 PR 17-SEP-1997; 97US-0059115P.
 PR 17-SEP-1997; 97US-0059117P.
 PR 17-SEP-1997; 97US-0059119P.
 PR 17-SEP-1997; 97US-0059121P.
 PR 17-SEP-1997; 97US-0059122P.
 PR 17-SEP-1997; 97US-0059184P.
 PR 18-SEP-1997; 97US-0059263P.
 PR 18-SEP-1997; 97US-0059266P.
 PR 15-OCT-1997; 97US-0062125P.
 PR 17-OCT-1997; 97US-0062285P.
 PR 17-OCT-1997; 97US-0062287P.
 PR 21-OCT-1997; 97US-0063486P.
 PR 24-OCT-1997; 97US-0063814P.
 PR 24-OCT-1997; 97US-0062816P.
 PR 24-OCT-1997; 97US-0063045P.
 PR 24-OCT-1997; 97US-0063120P.
 PR 24-OCT-1997; 97US-0063121P.
 PR 24-OCT-1997; 97US-0063127P.

PR 24-OCT-1997; 97US-0063128P.
 PR 27-OCT-1997; 97US-0063327P.
 PR 28-OCT-1997; 97US-0063329P.
 PR 28-OCT-1997; 97US-0063541P.
 PR 28-OCT-1997; 97US-0063342P.
 PR 28-OCT-1997; 97US-0063544P.
 PR 28-OCT-1997; 97US-0063549P.
 PR 28-OCT-1997; 97US-0063550P.
 PR 28-OCT-1997; 97US-0063564P.
 PR 29-OCT-1997; 97US-0063435P.
 PR 29-OCT-1997; 97US-0063704P.
 PR 29-OCT-1997; 97US-0063732P.
 PR 29-OCT-1997; 97US-0063734P.
 PR 29-OCT-1997; 97US-0063735P.
 PR 29-OCT-1997; 97US-0063738P.
 PR 29-OCT-1997; 97US-0064215P.
 PR 31-OCT-1997; 97US-0063870P.
 PR 31-OCT-1997; 97US-0064103P.
 PR 03-NOV-1997; 97US-0064248P.
 PR 07-NOV-1997; 97US-0064809P.
 PR 12-NOV-1997; 97US-0065186P.
 PR 17-NOV-1997; 97US-0065846P.
 PR 18-NOV-1997; 97US-0065693P.
 PR 21-NOV-1997; 97US-0066120P.
 PR 21-NOV-1997; 97US-0066364P.
 PR 24-NOV-1997; 97US-0066453P.
 PR 24-NOV-1997; 97US-0066466P.
 PR 24-NOV-1997; 97US-0066511P.
 PR 24-NOV-1997; 97US-0066770P.
 PR 24-NOV-1997; 97US-0066772P.
 PR 25-NOV-1997; 97US-0066840P.
 PR 12-DEC-1997; 97US-0069425P.
 PR 04-JUN-1998; 98US-0088026P.
 PR 10-SEP-1998; 98US-0099803P.
 PR 10-SEP-1998; 98WO-US018824.
 PR 14-SEP-1998; 98US-0100262P.
 PR 14-SEP-1998; 98WO-US019177.
 PR 16-SEP-1998; 98WO-US019330.
 PR 17-SEP-1998; 98US-0100858P.
 PR 17-SEP-1998; 98WO-US019437.
 PR 13-OCT-1998; 98US-0104080P.
 PR 20-NOV-1998; 98US-0109304P.
 PR 01-DEC-1998; 98WO-US025108.
 PR 01-DEC-1998; 98US-0113296P.
 PR 07-JUL-1999; 98US-0143048P.
 PR 26-JUL-1999; 99US-0145698P.
 PR 28-JUL-1999; 99US-0146222P.
 PR 08-SEP-1999; 99WO-US020594.
 PR 13-SEP-1999; 99WO-US020944.
 PR 15-SEP-1999; 99WO-US021090.
 PR 15-SEP-1999; 99WO-US021547.
 PR 05-OCT-1999; 99WO-US023089.
 PR 29-NOV-1999; 99WO-US028214.
 PR 29-NOV-1999; 99WO-US028313.
 PR 01-DEC-1999; 99WO-US028301.
 PR 01-DEC-1999; 99WO-US028564.
 PR 02-DEC-1999; 99WO-US028565.
 PR 16-DEC-1999; 99WO-US030095.
 PR 20-DEC-1999; 99WO-US030911.
 PR 20-DEC-1999; 99WO-US030999.
 PR 05-JAN-2000; 2000WO-US000219.
 PR 11-FEB-2000; 2000WO-US003565.
 PR 22-FEB-2000; 2000WO-US004414.
 PR 24-FEB-2000; 2000WO-US005004.
 PR 02-MAR-2000; 2000WO-US005841.
 PR 20-MAR-2000; 2000WO-US007377.
 PR 30-MAR-2000; 2000WO-US008439.
 PR 22-MAY-2000; 2000WO-US014042.
 PR 02-JUN-2000; 2000WO-US015264.
 PR 28-JUL-2000; 2000WO-US020710.
 PR 24-AUG-2000; 2000WO-US023328.
 PR 18-SEP-2000; 2000US-00665350.
 XX

PA (GETH) GENENTECH INC.
 XX Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
 PI Pilvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
 PI Godowski PU, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
 PI Williams PM, Wood WI;
 XX WPI: 2003-521801/49.
 DR N-PSDB; ADA16280.
 XX
 PT New genes encoding for secreted and transmembrane PRO polypeptides,
 PT useful for treating e.g. cardiac insufficiency disorders, wounds,
 PT cancers, obesity, diabetes, hyperinsulinemia, hypoinsulinemia, or
 PT arthritis.
 XX
 PS Claim 12; SEQ ID NO 245; 476pp; English.
 XX
 CC The invention discloses isolated PRO secreted/transmembrane polypeptides
 and the nucleic acid encoding them. The polypeptides can be used to raise
 antibodies that specifically bind to the PRO polypeptide, for linking a
 bioactive molecule to a cell expressing a PRO protein and for modulating
 at least one biological activity of a cell. PRO polypeptides are useful
 for detecting other PRO polypeptides in a sample and for linking a
 bioactive molecule to a cell expressing a PRO polypeptide. The PRO
 polypeptide antibodies are useful for modulating the biological activity
 of a cell expressing PRO polypeptides. The PRO polypeptides or
 polynucleotides are useful as pharmaceuticals, diagnostics, biosensors or
 bioreactors. These are useful for stimulating hypertrophy of neonatal
 heart, inhibiting vascular endothelial growth factor (VEGF)-stimulated
 proliferation of endothelial cells, modulating the proliferation of
 stimulated T-lymphocytes, enhancing the survival or proliferation of
 retinal neurons or rod photoreceptor cells, inducing c-fos in endothelial
 cells, modulating glucose or FFA uptake, inducing proliferation and/or re
 differentiation of chondrocytes. In particular, these are useful for
 detecting or treating cardiac insufficiency disorders, wounds, cancerous
 tumours, retinal disorders or injuries (e.g. loss of sight due to
 retinitis pigmentosa), obesity, diabetes, hyperinsulinemia,
 hypoinsulinemia, or bone or cartilage disorders (e.g. sports injuries or
 arthritis) in mammals. PRO polypeptides and their portions affect the
 expression of genes which have a role in cell death. The polynucleotides
 are useful in molecular biology including uses as hybridisation probes
 for cDNA library to isolate the full-length PRO cDNA or to isolate other
 cDNAs, in chromosome and gene mapping, in the generation of antisense RNA
 and DNA, for preparing PRO polypeptides, for generating transgenic
 animals or knockout animals which are useful in the development and
 screening of therapeutically useful reagents, as probes and for the
 genetic analysis of individuals with genetic disorders as well as for
 recombinantly expressing the protein and for chromosome identification.
 The proteins are useful as molecular marker for protein electrophoresis
 purposes, as therapeutic agents, for screening compounds to identify
 those that mimic the PRO polypeptide (agonists) or prevent the effect of
 the PRO polypeptide (antagonists). The polynucleotides and proteins are
 useful for tissue typing. PRO antibodies are useful for
 immunohistochemical staining and/or assay of sample fluids. Anti-PRO
 antibodies are useful in diagnostic assays for PRO e.g. detecting its
 expression in specific cells, tissues or serum and for affinity
 purification of PRO from recombinant cell culture or natural sources. The
 PRO genes may also be used in gene therapy, particularly for replacing a
 defective gene. The sequence presented is a PRO polynucleotide of the
 invention.
 XX
 SQ Sequence 713 AA;

Query Match 75.5%; Score 37; DB 6; Length 713;
 Best Local Similarity 60.0%; Pred. NO. 1e+02;
 Matches 6; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 QY 1 HSFSGVASVE 10
 DB 135 HSFAGLASLQ 144